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   ttccacctgc agaatgaccc cccagctgcc tttcccaagg tgaagatcca gattctaagc
                                                                          960
  aactggggcc acccccgttt cacgtgcttg tatcgagtcc gtgcccacgg tgtgcgaacc
                                                                         1020
tcagaggggg cagagggcag tgcacagggg ccccattaaa catgctgatt tttggagtaa
                                                                         1080
   ana anananana anananana anananana
                                                                         1113
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<210> 20
<211> 947
<212> DNA
<213> Homo sapiens

<220>
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<223> n equals a,t,g, or c

<221> SITE
<221> SITE
<223> n equals a,t,g, or c
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<400> 20

tegta

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9
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    gattgtcatt tgggtgtgta gcatttaaga tttaacagct ttctattata gagatcctac
                                                                           120
    agotttatat, tagaagatta ttotgaagto ataacatttt tttaaaaaag taatttoaga
                                                                           180
    aaaaaaaaag aatgttactg ggataatgag gaatgatgtc tagctgcctg gtggtggtca
                                                                           240
    teactetgeg tgettatttt agttggttge aggecattag aagteaagtt gtetggteac
                                                                           300
    gaatgaaacg tttacagtct getteaagge aatcaggact atccattccc aggagtgaaa
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    tgtctgcatt gcatagactg caagattgga gtgataaatc acacatactt ttttttattt
                                                                           420
    ttttgccaag agtttgtagg ttcccattat aaagccaggc acttgattta gaatgtgtaa
                                                                           480
    ggcaatcett tgggaatget ttgggatyea geataaetet ttgaatgaae tggagetttg
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    tgaattnoct ttttntcctc agatcataag gtagaaaaaa attootttta acaaaatago
                                                                           600
    attettatee acceaectte tgateeaggg gagtacaetg ggtattgace teaggaaaga
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   gaacaaggga gtgagggtac aggaaatgtt aggagtgtga gcttgaagac aaagacgacc
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   caactggcaa agacagcagt tgtcaatcag agcagatgaa tcatcacatc agcaaatatt
                                                                           780
   cattatatat ctgctcaata ataagaaaag cttctaccaa aggccaatgc tccagacctc
                                                                           840
   toccegaaco tocagattoa ettacecace tgeetacece ageaatgtae agageatege
                                                                           900
   ctcgtgccga attcgatatc aagettatcg ataccgtcga cctcgag
                                                                           947
   <210> 21
   <211> 1685
   <212> DNA
   <213> Homo sapiens
   <220>
   <221> SITE
   <222> (396)
   <223> n equals a,t,g, or c
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   aagcccacat tottgctgtg toatcacatg gtttttcctc tgtgcttgtg cacttgtctc
                                                                           120
   ttcttcttat caggacaaca atcctattgg tttcaggcct gagccttata accctattta
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   atgttaataa cctttgtaaa agccctatct catatcacat tgggggttag agtttcaacc
                                                                          240
   tatgcatttt ggggacacaa tgtagtctat atcaccttgc cttatccttt gccacttaga
                                                                          300
   toatcacatg gtcgatgcct tttcattact caggtgttat tctaatatca ttccttggag
                                                                          360
   agttctccct caactattgc ttaatcacag tgtatngtaa ctctacagga catgtctgac
                                                                          420
   cctgttcact catcactaaa attactatat acaaccagaa ttgtgcttga cacatataat
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   gaagcattga gaaaacattt gttgaataaa tgttttcttc taatactggt ttatgggcat
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  aactatttct gaatgtgtcc tttctcaaag gtagacacct gagctttatg atccatggtg
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ttatcctaaa aaacagaaca caatattatt atattaagta taccactgaa tatagcaatt
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   ggtgtcttga ggagttacaa catgtcattm tttawatagg ttatcatatt ttttccagta
                                                                          720
   atcaccccag ctatattaaa atgaaacttc tccccttttt ctctctaggt agcatcttcc
                                                                          780
   ttgactcttt cttagacaga tgctataact tttcagctac ttgagttatt agtttatttc
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   attatttatt gattttaaaa tgccaatctc aaattatact caaaggtttt tctacatttc
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   ccatctgtga tgacagctct tatagcttta arartactag gttgtgggtg ggcttcaaga
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  catctctttt cactcccact tctagatgcc agctccatct gtgatatgac aagagcgggt
                                                                         1020
   aaatatette ttaettgaet caateagatt geagtettet ttteettggt tgttgettet
                                                                         1080
   caggotgaca ottactotag atgtcototg catggttggg otcotaatto otgtaattot
                                                                         1140
   gaatggtete cakgtactty cttttagaat cacctaagag gtgttecact tettgggtea
                                                                         1200
  ctgaaagagg ctggtcaaga ttcaaatcca cttatttaat cactttattc ttggttaaaa
                                                                         1260
  tocaacaaag actgatocta goatacettt tetttgtttt etgeetgaat gagtattage
                                                                         1320
  aggccagctt gagcacagca gcattattta catccatcat gcccaagagt agttcatatc
                                                                         1380
  cttgcttcat caaataggag gacaagttaa ttaccagaat tccttatctt agcacctcca
                                                                         1440
  tetetetgtt ggteattget tteatgeegg ggeageaata aagtatetgt ggateeaatg
                                                                         1500
  cotcactaac totttttgt ttotgagatg gagtotcatt otgttgccca ggotggagtg
  cagtggcgcg atcttggctc actgaaaget ecaceteetg ttttcaagea atteteetge
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  ctcaacctcc tgggtagcct cgtgccgaat tcgatatcaa gcttatcgat accgtcgacc
                                                                        1680
```

```
<210> 22
    <211> 1837
    <212> DNA
    <213> Homo sapiens
   <220>
   <221> SITE
   <222> (48)
   <223> n equals a,t,g, or c
   <220>
   <221> SITE
   <222> (987)
   <223> n equals a,t,q, or c
   <220>
   <221> SITE
   <222> (1037)
   <223> n equals a,t,q, or c
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   <221> SITE
   <222> (1312)
   <223> n equals a,t,q, or c
   <400> 22
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                                                                           120
   gettgeccae geceegggag etegeggege etggeggtea gegaceagae gteeggggee
                                                                           180
   getgegetee tggecegega ggegtgacae tgtetegget acagacccag agagaaaage
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   ttcattctgg aggggaagga gttttgagtg ccaaggatga aattccaccc atcactcggt
                                                                           300
   ctctgagctg caggacacag gcaggacaac gggagcacac tgccaggatg ggagctgctg
                                                                           360
   ggaggcagga cttcctcttc aaggccatgc tgaccatcag ctggctcact ctgacctgct
                                                                           420
   tccctggggc cacatccaca gtggctgctg ggtgccctga ccagagccct gagttgcaac
                                                                           480
   cctggaaccc tggccatgac caagaccacc atgtgcatat cggccagggc aaqacactgc
                                                                          540
   tgctcacctc ttctgccacq qtctattcca tccacatctc agagggaggc aagctggtca
                                                                           600
   ttaaagacca cgacgagccq attgttttgc gaacccggca catcctgatt gacaacggag
                                                                           660
gararctgca tgctggggag tgccctctgc cctttccagg gcaatttcac catcattttq
                                                                          720
   tatggaaggg ctgatgaagg tattcagccg gatocttact atggtctgaa gtacattggg
                                                                          720
   gttggtaaag gaggcgctct tgarttgcat ggamaqaaaa aactctcctg gacatttctg
                                                                          840
   aacaagamcc ttcacccagg tggcatggca qaaggaggct atttttttqa aaggaqctqq
                                                                          900
   ggccaccgtg gagttattgt tcatgtcatc gaccccaaat caggcacagt catccattct
                                                                          960
   gaccggtttg acacctatag atccaanaaa gagagtgaac gtctggtcca gtatttgaac
                                                                         1020
   gcggtgcccg atggcangat cctttctgtt gcagtgawtg atsaaqqttc tcqaaatctq
                                                                         1080
   gatgacatgg ccaggaaggc gatgaccaaa ttqqqaagca aacacttcct qcaccttqqa
                                                                         1140
   tttagacacc cttggagttt tctaactgtg aaaggaaatc catcatcttc agtggaagac
                                                                         1200
   catattgaat atcatggaca tcgaggctct gctgctgccc gggtattcaa attgttccag
                                                                         1260
   acagagcatg gcgaatatty caatgtttct ttgtccagtg artgggttca anacgtggak
                                                                         1320
   tggacggakt ggttcgatca tgataaagtw tctcagacta aaggtgggga gaaaatttca
   gacctctgga aagctcaccc aggaaaaata tgcaatcgtc ccattgatat acaggccact
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   acaatggatg gagttaacct cagcaccgag gttgtctaca aaaaagscca ggattatagg
                                                                         1500
   tttgcttgct acgaccgggg cagagcctgc cggagctacc gtqtacqqtt cctctqtqqq
                                                                         1560
   aagcctgtga ggcccaaact cacaqtcacc attgacacca atgtgaacag caccattctg
   aacttggagg ataatgtaca gtcatggaaa cctggagata ccctggtcat tgccagtact
                                                                         1680
   gattactcca tgtaccaggc agaagagttc caggtgcttc cctgcagatc ctgcgccccc
                                                                         1740
  aaccaggtca aagtggcagg gaaaccaatg tacctgcaca tcgggggtcg acgcggccgc
                                                                         1800
  gaatcccggg tcgacgagct cactagtcgg cggccgc
                                                                         1837
```

aaaaaaaaa aaactcgag

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<210> 23
   <211> 1095
   <212> DNA
   <213> Homo sapiens
   <220>
   <221> SITE
   <222> (720)
   <223> n equals a,t,g, or c
   <400> 23
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   tatgcaaact taatggcgtt ttgttttttt atattctatt tgtattcttt ccccagtatt
                                                                         120
   toccatgggg atotccacaa gtttggagtt ttttcctggt gcacacacgt gaggagattt
                                                                         180
   aaggtactat atgcaagtgt tttactaaaa'agcactgaaa ttcttctggc aatacaagaa
                                                                         240
   coattttcag gatottggag ttacttcctt ottaatottt ottaaaqcat tcactgatgt
                                                                         300
   ttttgttttt tcaaaatgaa acaaaaatat cacattgaga agctagtcta tgttctgtca
                                                                         360
   ctaacattta aactttgcag actctaacaa aaagcacaag aggtcacgta ctattataca
                                                                         420
   aatttagegg tactggattt acctetgaca ttaacacact caggeagaga ccaggagtga
                                                                         480
   tcagcaggtc ttcagaacca aaaaaccttt ctgttcacat ttcatctgat ttttaaactg
                                                                         540
   aggcaggett tgattettet gaaggatgee aagaatcaaa etaagggagg acteaetgtt
                                                                         600
 aaagatgtgt totgatgtot tatattaaga coaratgtga catgatgtga ttatottoca
                                                                         660
   gtactttgct tttaggtacc atttcatgac attttaggaa tgagtattgg aaaatataan
                                                                         720
   gaattagaaa agcagcactt tttttttaat ggaaaagtct tcggtccagt gttacacctt
                                                                         780
   atagtgtaat toagtoocta agcacagaat gaatgtotgg cotgoatatg gtagttacag
                                                                         840
   tgtaacctct ggctgcagac cacacaggac aaccctaaca gcctagtctt gtatggtgta
                                                                        900
   aatatcaaga gtacagcttc aatttcattt gctttatctt agcaacaatg ccaactcagg
                                                                        960
   agagcagacg gccgatttca gtgaagtctg gtagtcaaca gatgttattt cagtctcagt
                                                                       1020
   1080
   aaaaaaaaac tcgag
                                                                       1095
   <210> 24
   <211> 1039
   <212> DNA
   <213> Homo sapiens
  <400> 24
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   tggcatgcag tgggcagtca aatgctggct attccagctg tgcatggatt ccagcttggc
  cagtettgga tgggetgaga aaagggaget getttteeet aaaagaccat cecaactgtg
                                                                        180
  ctctaccaca ctttgctctc ctggctaaga ctcagagaca gatgtatgta tgcccctgag
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  caatctcttt cccttctctg gatctcgatt ccttgcttgt ataatgacct ggtagtgtag
                                                                        300
  gaccaatgtt gctgggtgcg gtggctcatg cctgtaatcc tagcactttg gaacgccaag
  cacgagaatc tottgattcc aggtgttcaa gaccagcotg ggcaacatag caagaccca
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  tototaaaaa aaaaaggcag gogtgatggt goacacotgt agtoccagot actoaagatg
                                                                        480
  ctgacgttgg gaggatcgct tgagcctggg agcttgagcc atgatcacac cactgtactc
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  cagectgggt gacagagagg gactetgtet caaaaaatga eecaetagga ceagtgteae
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  tttcttttcc ctctaactgc ttaaagctgt gatgctcagt aggatagcca ctagccccat
                                                                        660
  atggetattt caatttaaat aaattaaaat tttaatgeta tttcaattta aataaattaa
                                                                        720
  aattttaatg ctattttaat ttaaataaat taaaattaag taaaatgaaa ttttcagttc
                                                                        780
  attagtcaca ttagctatat ttcaactget cagtggccat aggtggctag tggctcccat
                                                                        840
  agcaagtggt acagatgcca ggacatttcc atcattgcag aaagttctat taaacaggct
                                                                        900
  ggcatggtgg ctcatgtctg taaccccagc actttgagag gctgaggggg caggatcgct
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  tgaagctagg agttcaagac cagcctgggc aacaaagtga gacccccatc tctacaaaaa
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<210> 25
    <211> 1076
    <212> DNA
   <213> Homo sapiens
   <220>
   <221> SITE
   <222> (910)
   <223> n equals a,t,g, or c
   <220>
   <221> SITE
   <222> (912)
   <223> n equals a,t,g, or c
   <220>
   <221> SITE
   <222> (958)
   <223> n equals a,t,q, or c
   <220>
   <221> SITE
   <222> (1038)
   <223> n equals a,t,g, or c
   <400> 25
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                                                                          60
   ccctcctctc catcccagta cacattgttg gtgaggaaaa agacatgctt aagtgcacat
  totgtotoot aaacactott aagaaatgtg ttgtatggaa gagattatat cataatggtg
                                                                          180
  gagcaaataa cctgtaattt tgttctagtg ttaactgcct ccattttagg ggttgagttt
                                                                          240
   ctactccttt tccatgatct cttctcttgc tgtttaaaaa atgatttcac agagtaaagg
                                                                          300
   tcagagtgcg ttaaaatgct tttgtatgaa gacctagcaa atacaagacc tgcttggctg
                                                                          360
   attgcttatg gttggaagtg actcatctaa gcacaggagt gtgaggttta tggcttagaa
                                                                         420
   cgtaagatac cagcctctgt agtggccaaa taagccggcc tttttgtttg ttattacaga
                                                                         480
   tgggttttga tgtcaaggtc aactgagttt tqaqttgtcc ataaqatqqa cagaacatct
                                                                         540
   gcatataaca ccaactgaat gaacccccag tttqtctaqq qctttqataa aaaatttggc
                                                                          600
   cctctagacc gggcgtggtg gctcacacct ataatcccag cactttggga ggccgaggtg
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   ggaggattgc ttaaggtcag gaatgcaaga ccaacttggt cttgtagtca gtgtagtgag
                                                                         720
  accccatctc taccaaaaaa aaaaaaaaa aactcgaggg ggggcccggt acccaattcg
                                                                         780
coctatagtg agtogtatta caattcactg googtogttt tacaacgtog tgactgggaa
  aaccetggcg ttacccaact taatcqcctt qcagcacatc cccctttcgc cagctggcgt
   aatagcgaan angcccgcac cgatcgccct tcccaacagt tgcgcagcct gaatggcnaa
                                                                         960
   tggcaaattg taagcgttaa tattttgtta aaattcgcgt taaatttttg ttaaatcagc
   tcatttttta accaatangc cgaaatcggc aaaatccctt ataaatcaaa agaata
                                                                        1076
   <210> 26
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<210> 26

<211> 860

<212> DNA

<213> Homo sapiens

<220>

<221> SITE

<222> (15)

<223> n equals a,t,g, or c

<220>

<221> SITE

<221> SITE

<222> (21) SITE

<222> (22) SITE
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13
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   <400> 26
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   gcaggaattc ggcacgagga caaaggcttg ggaaatgagg ggaggtggag gcaqqqcaqq
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   ggaagcgaag agtcagcctt ggagagagca ccctggggcc tccgtgtcgg ggtacaccca
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   geactitigeg acctgeggee cageaggege ggaggatgge ggggaggaag ceageageee
                                                                      240
   300
   tgttttgttt ggcttgtttg ttttttaagg ggaaaaaagt ttgtaattat ttcatccaaa
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   tctcccgtta tatatctgtg aataataaga gattttataa tagcaagaaa atgatgtata
                                                                     420
   ttttagtttg ttgacaaata agtcatcatg atcacgaagg acactgagaa aaaataattt
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   agaaccctgg tttttgtgaa wttttttgtt ttgtgtttct ttgttttgag atttgtgttt
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   ggtttggttt ttgcactgca ctaaggcagg agggttggag ggctgggtgc agcctgggag
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   teegatggtt tteageagga gaeggggtgt eeeetgeagg gggetaaact geaggggeet
                                                                     660
   gagattaget gtgaacatgt gggageeega tgeatgtggg teagggatet gggggeeee
                                                                     720
   ccagctggcg ggaaccccaa atggacacaa'actgtacatt tgccaatggg tttttttcag
                                                                     780
   840
   actgcggtcc gcaagggaat
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   <210> 27
   <211> 776
   <212> DNA
   <213> Homo sapiens
   <220>
   <221> SITE
   <222> (2)
  <223> n equals a,t,g, or c
  <220>
  <221> SITE
   <222> (13)
   <223> n equals a,t,g, or c
   <220>
   <221> SITE
   <222> (61)
<223> n equals a,t,g, or c
   <220>
   <221> SITE
   <222> (79)
  <223> n equals a,t,g, or c
  <220>
  <221> SITE
  <222> (101)
  <223> n equals a.t.g. or c
  <400> 27
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  naaaagettg ttacgcctng caaggtaccc ggttccggaa nttcccgggt tcgaccccac
  ggcgttcgag ggctcctttc tcttgcctgg aggggaaaac agaagattct ggcttgagct
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  teceteatge tgecetattt taagtggete etceacetgg tgaggetgte etttgtetet
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  ctggcttctc catgggacag cacagetggc cttggcctga agetecetaa catetatggg
                                                                     300
  atgacatcta tgggatggga tccctcacct ggggccaggg gaggggttgg cacagagaag
                                                                     360
  cgatgagatg ggtctccaag gccaggtctc ctttcatcct gagcaaaggg ctcagggcta
                                                                     420
```

tgaaatgatc caagacatga aacaaatatt aaatataaaa atagagtcca aaggccaggc

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geggtggete atgeetgtaa teecageaet ttgggaggee gaggtgggtg gateaegagg
       tcaggagatc gagaccatcc tggctaacat ggtgaaaccc cgtctttact aaaaatacaa
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       aaaattagcc aggtgtggtg gtgggcgcct gtggtccctg ctactcggga ggctgaggca
                                                                              660
      ggagaatggc atgaagctgg gaggtggagt ttgaggtgag ccgagatcac gccactgcac
                                                                              720
       tocagootga gtgacagago aactocatot caaaaaaaaaa aaaaaagggo ggoogo
                                                                              776
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      <211> 1074
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> SITE
      <222> (1063)
      <223> n equals a,t,g, or c
      <220>
      <221> SITE
      <222> (1067)
      <223> n equals a,t,g, or c
     <400> 28
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                                                                              60
     gatacgtaat tcacctctgg gacctcaacc acgaagggac gtgggaagga aaggggacgt
     atgtctatta cacagacttt gtcatggagc tcactctcct gtccctggac ctcatgcacc
                                                                             180
      atattcacat gttggtaagt ttcctcagaa ggagctctaa cagagggcaa gcctttcaga
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      atcaggaaca gtaatggttt cttcattaaa aaatgaaact ttagaaataa gatgtggatg
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      gactacttaa agactaaaaa tgaatgtggc tgcaaaccct ccctctttt gccactgggt
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      gtaaggcagt gccatggaac tgctttggct ggtgcctaac tcaggaggtg tttgctgtcc
                                                                             420
     tgggagactt agttaactct gctgaccaag tcaatagatt attcttttag catgaaatta
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      aggagetgee ttteccecata gtttetatgg etttaaatat ttagcaggta etttgtaggt
      ggtaatggga attoctgcag tgttagctac ttcacagatt tatacatttt ccatctttgt
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      aattaaaaaa agtotttaca ottaattoot acattootac taccatcatt gtttacattt
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      tactttggta tgttagacgt tacggtgtcg tagatctgcy tcattggktg gcccttcagt
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      gatctaataa tggtgagaat taaaatagtt ggtgggcaat ttawttaaat tataagccta
                                                                             780
      gcaagtagca ttttaaaawt attgggctag acgtggcmca tttctaagtc tactttttga
                                                                             840
      aagaaacttt gaaaacatac tttttaaaga aagtatgtaa ttctttttt taaaaaagag
                                                                             900
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1740

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1820

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180

240

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120

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1860

1873

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1478
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<211> 1089
<212> DNA
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<221> SITE
<222> (353)
<223> n equals a,t,g, or c
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<221> SITE
<222> (528)
<223> n equals a,t,g, or c
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120

180

240

300

360

420

480

540

600

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geggggageg eccaggatge egegegggga eteggageag gtgegetaet gegegegett
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agetggtatt teecegeatg tettattett gecetteece caaccagttt gttaatcaaa
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<213> Homo sapiens
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acatececce aatattttag ttttttgagg aactecagtg cateattaat acceaetttt
                                                                     180
cotcoctcot cotototoac cactococaa gocatttota attogtotoc aageottgtg
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	ccaacagete					840
	ggaaaggtgg					900
	gacatgggag					960
	gttgatctat					1020
	gggttaaatg					1080
	catgctcgtt					1140
	tgcctaggaa					1200
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	aaattgtact					240
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<210> 62 <211> 1452

<212> DNA

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1380

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tggaactgtt ctagaagtcc tcatttgctt ctttacactc tggtccgtcg tgggactgac
                                                                      540
tggatttcat actttcctcg tggctctcaa ccagacaacc aatgaaagac atcaaaggat
                                                                      600
catggacagg gaagaatcgc gtccagaatc cctacagcca tggcaatatt gtgaagaact
                                                                      660
gctgtgaagt gctgtgtggc cccttgcccc ccagtgtgct ggatcgaagg ggtattttgc
                                                                      720
cactggagga aagtggaagt cgacctccca gtactcaaga gaccagtagc agcctcttgc
                                                                     780
cacagagece agececcaca gaacacetga acteaaatga gatgeeggag gacageagca
                                                                     840
ctcccgaaga gatgccacct ccagagcccc cagagccacc acaggaggca gctgaagctg
                                                                     900
agaagtagee tatetatgga agagaetttt gtttgtgttt aattaggget atgagagatt
                                                                     960
tcaggtgaga agttaaacct gagacagaga gcaagtaagc tgtccctttt aactgttttt
                                                                    1020
ctttggtctt tagtcaccca gttgcacact ggcattttct tgctgcaagc ttttttaaat
                                                                    1080
ttctgaactc aaggcagtgg cagaagatgt cagtcacctc tgataactgg aaaaatgggt
                                                                    1140
ctcttgggcc ctggcactgg ttctccatgg cctcagccac agggtcccct tggacccct
                                                                    1200
ctcttccctc cagatcccag ccctcctgct tggggtcact ggtctcattc tggggctaaa
                                                                    1260
agtittegag actggeteaa ateeteecaa getgetgeae gtgetgagte cagaggeagt
                                                                    1320
cacagagacc tetggecagg ggatectaac tgggttettg gggtetteag gaetgaagag
                                                                    1380
gagggagagt ggggtcagaa gattctcctg gccaccaagt gccagcattg cccacaaatc
cttttaggaa tgggacaggt accttccact agttgtattt attagtgtag cttctccttt
                                                                    1500
gtotoccato cactotgaca cottaagooc cactotttto coattagata tatgtaagta
                                                                    1560
gttgtagtag agataataat tgacatttct cgtagactac ccagaaactt ttttaatacc
                                                                    1620
tgtgccattc tcaataagaa tttatgagat gccagcggca tagcccttca cactctctgt
                                                                    1680
ctcatctctc ctcctttctc attagcccct tttaatttgt ttttcctttt gactcctgct
                                                                    1740
cccattagga gcaggaatgg cagtaataaa agtctgcact ttggtcattt cttttcctca
                                                                    1800
gaggaageet gagtgeteae ttaaacacta teeceteaga eteeetgtgt gaggeetgea
                                                                    1860
gaggeeetga atgeacaaat gggaaaccaa ggeacagaga ggeteteete teeteteete
                                                                    1920
toccccgatg taccctcaaa aaaaaaaaaa aaaaa
                                                                    1955
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<210> 81
<211> 54
<212> PRT
<213> Homo sapiens
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<221> SITE <222> (54)

<223> Xaa equals stop translation

115

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<400> 81
  Met Ala Gly Gln His Leu Ala Cys Leu Ala Ser Cys Val Met Ser Leu
  Ile Trp Phe Phe Phe Phe Cys Ser Cys Phe Ile Cys Ser Ala Pro Ala
  Pro Pro Gln Gln Leu Val Ala Tyr Gly Phe Phe Lys Arg Lys Val Asp
                               4.0
Phe Met Leu Tvr Ile Xaa
       50
 <210> 82
 <211> 578
  <212> PRT
 <213> Homo sapiens
 <220>
 <221> SITE
 <222> (326)
 <223> Xaa equals any of the naturally occurring L-amino acids
 <220>
 <221> SITE
 <222> (342)
 <223> Xaa equals any of the naturally occurring L-amino acids
 <220>
 <221> SITE
 <222> (444)
 <223> Xaa equals any of the naturally occurring L-amino acids
 <400> 82
 Met Pro Phe Arg Leu Leu Ile Pro Leu Gly Leu Leu Cys Ala Leu Leu
  Pro Gln His His Gly Ala Pro Gly Pro Asp Gly Ser Ala Pro Asp Pro
 Ala His Tyr Arg Glu Arg Val Lys Ala Met Phe Tyr His Ala Tyr Asp
          35
  Ser Tyr Leu Glu Asn Ala Phe Pro Phe Asp Glu Leu Arg Pro Leu Thr
                          55
 Cys Asp Gly His Asp Thr Trp Gly Ser Phe Ser Leu Thr Leu Ile Asp
  65
                       7.0
 Ala Leu Asp Thr Leu Leu Ile Leu Gly Asn Val Ser Glu Phe Gln Arg
 Val Val Glu Val Leu Gln Asp Ser Val Asp Phe Asp Ile Asp Val Asn
             100
                                 105
                                                      110
 Ala Ser Val Phe Glu Thr Asn Ile Arg Val Val Gly Gly Leu Leu Ser
```

120

- Ala His Leu Leu Ser Lys Lys Ala Gly Val Glu Val Glu Ala Gly Trp $130 \\ 135 \\ 140$
- Pro Cys Ser Gly Pro Leu Leu Arg Met Ala Glu Glu Ala Ala Arg Lys $145 \hspace{1.5cm} 150 \hspace{1.5cm} 155 \hspace{1.5cm} 160 \hspace{1.5cm}$
- Leu Leu Pro Ala Phe Gln Thr Pro Thr Gly Met Pro Tyr Gly Thr Val
- Asn Leu Leu His Gly Val Asn Pro Gly Glu Thr Pro Val Thr Cys Thr $180 \,$ $185 \,$ $190 \,$
- Ala Gly Ile Gly Thr Phe Ile Val Glu Phe Ala Thr Leu Ser Ser Leu 195 \$200\$
- Thr Gly Asp Pro Val Phe Glu Asp Val Ala Arg Val Ala Leu Met Arg 210 215 220
- Leu Trp Glu Ser Arg Ser Asp Ile Gly Leu Val Gly Asn His Ile Asp 225 230235235
- Val Leu Thr Gly Lys Trp Val Ala Gln Asp Ala Gly Ile Gly Ala Gly 245 \$250\$
- Asp Lys Lys Leu Met Ala Met Phe Leu Glu Tyr Asn Lys Ala Ile Arg 275 280 285
- Asn Tyr Thr Arg Phe Asp Asp Trp Tyr Leu Trp Val Gln Met Tyr Lys 290 295 300
- Gly Thr Val Ser Met Pro Val Phe Gln Ser Leu Glu Ala Tyr Trp Pro 305 \$310\$
- Gly Leu Gln Ser Leu Xaa Gly Asp Ile Asp Asn Ala Met Arg Thr Phe \$325\$ \$330\$ \$335
- Tyr Asn Ile Pro Gln Gly Tyr Thr Val Glu Lys Arg Glu Gly Tyr Pro $355 \hspace{1cm} 360 \hspace{1cm} 365 \hspace{1cm}$
- Leu Arg Pro Glu Leu Ile Glu Ser Ala Met Tyr Leu Tyr Arg Ala Thr 370 375 380
- Gly Asp Pro Thr Leu Leu Glu Leu Gly Arg Asp Ala Val Glu Ser Ile 385 390 395 400
- Glu Lys Ile Ser Lys Val Glu Cys Gly Phe Ala Thr Ile Lys Asp Leu 405 415
- Arg Asp His Lys Leu Asp Asn Arg Met Glu Ser Phe Phe Leu Ala Glu 420 425 430
- Thr Val Lys Tyr Leu Tyr Leu Leu Phe Asp Pro Xaa Asn Phe Ile His

O

Ti.

C

Asn Asn Gly Ser Thr Phe Asp Ala Val Ile Thr Pro Tyr Gly Glu Cys 455 Ile Leu Gly Ala Gly Gly Tyr Ile Phe Asn Thr Glu Ala His Pro Ile 475 Asp Pro Ala Ala Leu His Cys Cys Gln Arg Leu Lys Glu Glu Gln Trp Glu Val Glu Asp Leu Met Arg Glu Phe Tyr Ser Leu Lys Arg Ser Arg Ser Lys Phe Gln Lys Asn Thr Val Ser Ser Gly Pro Trp Glu Pro Pro 515 Ala Arg Pro Gly Thr Leu Phe Ser Pro Glu Asn His Asp Gln Ala Arg 535 Glu Arg Lys Pro Ala Lys Gln Lys Val Pro Leu Leu Ser Cys Pro Ser 550 555 Gln Pro Phe Thr Ser Lys Leu Ala Leu Leu Gly Gln Val Phe Leu Asp 565 Ser Ser <210> 83 <211> 100 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (100) <223> Xaa equals stop translation <400> 83 Met Ala Leu Tyr Tyr Gln Asn Phe Tyr Ile Leu Val Val Phe Val Leu Phe Leu His Thr Ser Arg Thr Phe Val Leu Pro Val His Ala Val Lys 20 Asp Ser Ala Gln Val Leu Glu Glu Ile Val Lys His Glu Leu Gly Ser 40 Gln Val Ser Leu Leu Ser Pro Val Glu Glu Pro Gly Pro Ser Pro Cys Thr Pro Asp Ile Gln Gly Arg Gly Val Arg Lys Thr Leu Pro Pro Asn Gly Leu Asp Gly Met Phe Pro Ser Ser Cys Ser Pro Asn Val Ser Thr

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49
 Glv Ala His Xaa
           100
 <210> 84
 <211> 48
 <212> PRT
 <213> Homo sapiens
 <220>
 <221> SITE
 <222> (48)
 <223> Xaa equals stop translation
 <400> 84
 Met Gly Glu Phe Thr Ser Val Val Cys Tyr Cys Phe Ile Leu Ser Leu
                                   10
 Ile Ile Gly Ser Val Val Arg Trp Gln Gly Cys Gly Ala Glu Trp Gly
                                 25
 Phe Ala Leu Gly Glu His Met Trp Gln Arg Ala Gln Glu Asp Leu Xaa
         35
<210> 85
<211> 47
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (47)
<223> Xaa equals stop translation
<400> 85
Met Asn Ala Thr Thr Ser Phe Gln Phe Thr Thr Pro Thr Arg Leu Trp
                           10
Leu Met Leu Leu Leu Asn Tyr Gln Ile Phe Cys Cys Tyr Thr Val Thr
Phe Lys Glu Phe Gly Lys Leu Val Ser Thr Ala Asn Leu Gly Xaa
                            40
<210> 86
<211> 276
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (276)
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<223> Xaa equals stop translation

<400> 86

Met Gly Asn Phe Arg Gly His Ala Leu Pro Gly Thr Phe Phe Phe Ile $\frac{1}{5}$ 5 10 15

Ile Gly Leu Trp Trp Cys Thr Lys Ser Ile Leu Lys Tyr Ile Cys Lys $20 \hspace{1cm} 25 \hspace{1cm} 30 \hspace{1cm}$

Lys Gln Lys Arg Thr Cys Tyr Leu Gly Ser Lys Thr Leu Phe Tyr Arg \$35\$

Met Ala Gly Glu Gln Phe Ile Pro Gly Gly Pro His Leu Met Leu Tyr 65 70 75 80

Asp Tyr Lys Gln Gly His Trp Asn Gln Leu Leu Gly Trp His His Phe $85 \hspace{1cm} 90 \hspace{1cm} 95$

Thr Met Tyr Phe Phe Phe Gly Leu Leu Gly Val Ala Asp Ile Leu Cys \$100\$

Phe Thr Ile Ser Ser Leu Pro Val Ser Leu Thr Lys Leu Met Leu Ser 115 120 125

Asn Ala Leu Phe Val Glu Ala Phe Ile Phe Tyr Asn His Thr His Gly 130 135 140

Arg Glu Met Leu Asp Ile Phe Val His Gln Leu Leu Val Leu Val Val 145 \$150\$

Phe Leu Thr Gly Leu Val Ala Phe Leu Glu Phe Leu Val Arg Asn Asn 165 170 175

Trp Phe Phe Gln Ile Gly Phe Val Leu Tyr Pro Pro Ser Gly Gly Pro 195 \$205\$

Ala Trp Asp Leu Met Asp His Glu Asn Ile Leu Phe Leu Thr Ile Cys 210 215 220

Phe Cys Trp His Tyr Ala Val Thr Ile Val Ile Val Gly Met Asn Tyr 225 230235235 240

Ala Phe Ile Thr Trp Leu Val Lys Ser Arg Leu Lys Arg Leu Cys Ser 245 250 255

Ser Glu Val Gly Leu Leu Lys Asn Ala Glu Arg Glu Gln Glu Ser Glu 260 265 270

Glu Glu Met Xaa 275

<210> 87
<211> 86

<212> PRT

<211> 313

51 <213> Homo sapiens <220> <221> SITE <222> (86) <223> Xaa equals stop translation <400> 87 Met Ala Ser Lys Thr Leu Tyr Asp Leu Ala Leu Ala Tyr Leu Ser Ala Leu Ala Leu Pro Thr Leu Ala Gln Ser Leu Leu Phe Ser His Ser Gly Ser Leu Thr Ile Pro Arg Cys Thr Arg Leu Ser His Thr Ser Ala Pro 40 Leu His Val Leu Phe Ala Val Arg Gly Met Pro Phe Thr Val Thr Thr Leu Leu Ile His Ser Thr Asn Ala Ser Ser Phe Phe Tyr Thr Gln Leu 75 Ser Leu Lys Phe Phe Xaa 85 <210> 88 <211> 95 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (95) <223> Xaa equals stop translation Met Ala Ile Leu His Leu Phe Lys Phe Phe Ser Phe Phe Asn Phe Val Ile Ser Ala Ser Pro Ile Tyr Leu Leu Tyr His Tyr Leu Arg Ser Asp Lys Arg Val Leu Val Gly Gln Val Leu Gln Ser Leu Ser Gly Asn Asn 40 Ile Cys His Ile Thr Leu Leu Ile Cys Leu Leu Leu Ile Trp Glu Ala Lys His Trp Cys Leu Arg Gly Leu Pro Ile Ile Asn Cys His Tyr His 65 70 Tyr Ser Pro Leu Leu Phe Val Trp Lys Leu Asn Lys Gly Gln Xaa 85 9.0 <210> 89

<212> PRT <213> Homo sapiens

<220>

<221> SITE

<222> (313)

<223> Xaa equals stop translation

<400> 89

Met Pro Pro Pro Arg Val Phe Lys Ser Phe Leu Ser Leu Leu Phe Gln $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$

Gly Leu Ser Val Leu Leu Ser Leu Ala Gly Asp Val Leu Val Ser Met 20 25 30

Tyr Arg Glu Val Cys Ser Ile Arg Phe Leu Phe Thr Ala Val Ser Leu 35 40 \cdot 45

Leu Ser Leu Phe Leu Ser Ala Phe Trp Leu Gly Leu Leu Tyr Leu Val 50 60

Ser Pro Leu Glu Asn Glu Pro Lys Glu Met Leu Thr Leu Ser Glu Tyr 65 70 75 80

His Glu Arg Val Arg Ser Gln Gly Gln Gln Leu Gln Gln Leu Gln Ala 85 90 95

Glu Leu Asp Lys Leu His Lys Glu Val Ser Thr Val Arg Ala As
n 100 105 110

Ser Glu Arg Val Ala Lys Leu Val Phe Gln Arg Leu Asn Glu Asp Phe 115 120 125

Val Arg Lys Pro Asp Tyr Ala Leu Ser Ser Val Gly Ala Ser Ile Asp 130 135 140

Leu Gln Lys Thr Ser His Asp Tyr Ala Asp Arg Asn Thr Ala Tyr Phe 145 150 155 160

Trp Asn Arg Phe Ser Phe Trp Asn Tyr Ala Arg Pro Pro Thr Val Ile \$165\$ \$170\$

Leu Glu Pro His Val Phe Pro Gly Asn Cys Trp Ala Phe Glu Gly Asp 180 185 190

Gln Gly Gln Val Val Ile Gln Leu Pro Gly Arg Val Gln Leu Ser Asp 195 200 205

Ile Thr Leu Gln His Pro Pro Pro Ser Val Glu His Thr Gly Gly Ala 210 215 220

Asn Ser Ala Pro Arg Asp Phe Al'a Val Phe Gly Leu Gln Val Tyr Asp 225 230 230

Glu Thr Glu Val Ser Leu Gly Lys Phe Thr Phe Asp Val Glu Lys Ser $245 \hspace{1.5cm} 250 \hspace{1.5cm} 255$

Glu Ile Gln Thr Phe His Leu Gln Asn Asp Pro Pro Ala Ala Phe Pro 260 265 270

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Lys Val Lys Ile Gln Ile Leu Ser Asn Trp Gly His Pro Arg Phe Thr 275 \, 280 \, 285
```

Cys Leu Tyr Arg Val Arg Ala His Gly Val Arg Thr Ser Glu Gly Ala 290 295 300

Glu Gly Ser Ala Gln Gly Pro His Xaa 305

<210> 90

<211> 80

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (80)

<223> Xaa equals stop translation

<400> 90

Met Met Ser Ser Cys Leu Val Val Val Ile Thr Leu Arg Ala Tyr Phe $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Ser Trp Leu Gln Ala Ile Arg Ser Gln Val Val Trp Ser Arg Met Lys \$20\$

Arg Leu Gln Ser Ala Ser Arg Gln Ser Gly Leu Ser Ile Pro Arg Ser 35 40 45

Glu Met Ser Ala Leu His Arg Leu Gln Asp Trp Ser Asp Lys Ser His $50 \hspace{1cm} 60$

Ile Leu Phe Phe Ile Phe Leu Pro Arg Val Cys Arg Phe Pro Leu Xaa 65 70 75 80

<210> 91

<211> 47

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> .(47)

<223> Xaa equals stop translation

<400> 91

Met Leu Phe Leu Thr Cys Arg Ser Pro His Ser Cys Cys Val Ile Thr $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Trp Phe Phe Leu Cys Ala Cys Ala Leu Val Ser Ser Ser Tyr Gln Asp \$20\$

Asn Asn Pro Ile Gly Phe Arg Pro Glu Pro Tyr Asn Pro Ile Xaa

U)

100010

```
<210> 92
<211> 129
<212> PRT
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<213> Homo sapiens

<220>

<221> SITE

<222> (106)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (129)

<223> Xaa equals stop translation

<400> 92

Met Gly Ala Ala Gly Arg Gln Asp Phe Leu Phe Lys Ala Met Leu Thr $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Ile Ser Trp Leu Thr Leu Thr Cys Phe Pro Gly Ala Thr Ser Thr Val $20 \\ 25 \\ 30$

Ala Ala Gly Cys Pro Asp Gln Ser Pro Glu Leu Gln Pro Trp Asn Pro 35 40 45

Gly His Asp Gln Asp His His Val His Ile Gly Gln Gly Lys Thr Leu 50 60

Leu Leu Thr Ser Ser Ala Thr Val Tyr Ser Ile His Ile Ser Glu Gly 65 70 75 80

Gly Lys Leu Val Ile Lys Asp His Asp Glu Pro Ile Val Leu Arg Thr $85 \hspace{1cm} 90 \hspace{1cm} 95$

Arg His Ile Leu Ile Asp Asn Gly Gly Xaa Leu His Ala Gly Glu Cys $100 ext{ } 105 ext{ } 110$

Pro Leu Pro Phe Pro Gly Gln Phe His His His Phe Val Trp Lys Gly

Xaa

<210> 93

<211>.71 <212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (71)

<223> Xaa equals stop translation

<400> 93

Met Ala Phe Cys Phe Phe Ile Phe Tyr Leu Tyr Ser Phe Pro Ser Ile

143 Cal

20 25 30

Val Arg Arg Phe Lys Val Leu Tyr Ala Ser Val Leu Leu Lys Ser Thr 35 40 45

Glu Ile Leu Leu Ala Ile Gln Glu Pro Phe Ser Gly Ser Trp Ser Tyr $50 \hspace{1cm} 55 \hspace{1cm} 60 \hspace{1cm}$

Phe Leu Leu Asn Leu Ser Xaa 65 70

<210> 94

<211> 48

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (48)

<223> Xaa equals stop translation

<400> 94

Met Gln Trp Ala Val Lys Cys Trp Leu Phe Gln Leu Cys Met Asp Ser $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$

Ser Leu Ala Ser Leu Gly Trp Ala Glu Lys Arg Glu Leu Leu Phe Pro $20 \\ 25 \\ 30$

Lys Arg Pro Ser Gln Leu Cys Ser Thr Thr Leu Cys Ser Pro Gly Xaa 35 40 45

<210> 95

<211> 57

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (57)

<223> Xaa equals stop translation

<400> 95

Met Asn Trp Cys Leu Cys Ile Ile Ser Leu Thr Thr Leu Leu Ser Ile $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Pro Val His Ile Val Gly Glu Glu Lys Asp Met Leu Lys Cys Thr Phe \$20\$

Cys Leu Leu Asn Thr Leu Lys Lys Cys Val Val Trp Lys Arg Leu Tyr 35 40 45

56 His Asn Gly Gly Ala Asn Asn Leu Xaa 50 <210> 96 <211> 73 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (73) <223> Xaa equals stop translation <400> 96 Met Ala Gly Arg Lys Pro Ala Ala Pro Val Phe Thr Val Val Arg Lys 10 Val Leu Cys Phe Gly Phe Gly Val Phe Val Leu Phe Val Phe Cys Leu Ala Cys Leu Phe Phe Lys Gly Lys Lys Val Cys Asn Tyr Phe Ile Gln Ile Ser Arg Tyr Ile Ser Val Asn Asn Lys Arg Phe Tyr Asn Ser Lys 50 55 Lys Met Met Tyr Ile Leu Val Cys Xaa 65 <210> 97 <211> 60 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (60) <223> Xaa equals stop translation Met Leu Pro Tyr Phe Lys Trp Leu Leu His Leu Val Arg Leu Ser Phe Val Ser Leu Ala Ser Pro Trp Asp Ser Thr Ala Gly Leu Gly Leu Lys 25 Leu Pro Asn Ile Tyr Gly Met Thr Ser Met Gly Trp Asp Pro Ser Pro 35 Gly Ala Arg Gly Gly Val Gly Thr Glu Lys Arg Xaa 55 <210> 98 <211> 49

<211> 49

<212> PRT

<213> Homo sapiens

<220>

```
<221> SITE
 <222> (49)
 <223> Xaa equals stop translation
 <400> 98
 Met Trp Leu Gln Thr Leu Pro Leu Phe Ala Thr Gly Cys Lys Ala Val
                   5
                                      10
 Pro Trp Asn Cys Phe Gly Trp Cys Leu Thr Gln Glu Val Phe Ala Val
 Leu Gly Asp Leu Val Asn Ser Ala Asp Gln Val Asn Arg Leu Phe Phe
                             40
Xaa
<210> 99
<211> 57
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (57)
<223> Xaa equals stop translation
<400> 99
Met Arg Ser Ser Phe Leu Tyr Ala Ile Pro Ala Val Phe Phe Leu
Thr Gly Pro Cys Leu Arg Ile Asn Lys Ser Val Met Ser Glu Thr Lys
Val Tyr Ser Ser Val Cys Arg Cys Val Ala Pro Pro Phe Ser Pro Ala
         35
                             40
Ala Pro His Ile Gln Ser Arg Ser Xaa
     50
                         55
<210> 100
<211> 70
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (70)
<223> Xaa equals stop translation
<400> 100
Met Ala Cys Arg Ser Trp Cys Phe Thr Leu Leu Ala Asn Val Ser Phe
                                     10
Thr Leu Leu Pro Val His Trp Gly Ser Ala Glu Ala Val Phe Ser
```

Val Ser Ile Thr Leu Gly Cys Arg Pro Pro Ser Ser Leu Ser Val Pro 35 40 45

Leu Ser Arg Gly Arg Arg Asp Leu Gly Ser His Val Leu Ala Leu Val $50 \\ 60$

Ala Ser Leu Trp Lys Xaa

<210> 101

<211> 83

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (83)

<223> Xaa equals stop translation

<400> 101

Met Ala Glu Thr Arg Gly Leu Cys Ser Val Cys Phe Cys Ala Leu Cys 1 5 10 15

Leu Tyr Gly Ser Tyr Ala Ala Cys Pro Pro Cys Phe Ser Arg Glu Pro 20 25 30

Arg Gln Arg Arg His His Gly Asn Asp Trp Val Arg Trp Lys Phe Arg 35 \$40\$. \$45\$

Gly Pro Ala Leu Val Gly Arg Glu Ala Trp Leu Thr Ser Gln Ala Gln $50 \,$

His Val Cys Gly Ser Leu Leu Cys Thr Val Ser Ser Ser Pro Lys Trp 65 70 75 80

Glu Ser Xaa

<210> 102

<211> 43

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (43)

<223> Xaa equals stop translation

<400> 102

Met Ser Ser Pro Cys Leu Phe Leu Ser Leu Thr Glu Asn Ile Phe Met

1 5 10 15

Ser Phe Leu Ile Ala Gly Phe Gly Leu Phe Ile Ile Met Phe Ile Asn $20 \hspace{1cm} 25 \hspace{1cm} 30$

Thr Phe Asp Ser Thr Val Arg Asn Val Gly Xaa

<210> 103

<211> 325

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (286)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (318)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 103

Met Ile Ala Glu Leu Val Ser Ser Ala Leu Gly Leu Ala Leu Tyr Leu

Asn Thr Leu Ser Ala Asp Phe Cys Tyr Asp Asp Ser Arg Ala Ile Lys

Thr Asn Gln Asp Leu Leu Pro Glu Thr Pro Trp Thr His Ile Phe Tyr 40

Asn Asp Phe Trp Gly Thr Leu Leu Thr His Ser Gly Ser His Lys Ser 50

Tyr Arg Pro Leu Cys Thr Leu Ser Phe Arg Leu Asn His Ala Ile Gly

Gly Leu Asn Pro Trp Ser Tyr His Leu Val Asn Val Leu Leu His Ala 85

Ala Val Thr Gly Leu Phe Thr Ser Phe Ser Lys Ile Leu Leu Gly Asp

Gly Tyr Trp Thr Phe Met Ala Gly Leu Met Phe Ala Ser His Pro Ile 120

His Thr Glu Ala Val Ala Gly Ile Val Gly Arg Ala Asp Val Gly Ala 130

Ser Leu Phe Phe Leu Leu Ser Leu Leu Cys Tyr Ile Lys His Cys Ser 150

Thr Arg Gly Tyr Ser Ala Arg Thr Trp Gly Trp Phe Leu Gly Ser Gly 165 170

Leu Cys Ala Gly Cys Ser Met Leu Trp Lys Glu Gln Gly Val Thr Val

Leu Ala Val Ser Ala Val Tyr Asp Val Phe Val Phe His Arg Leu Lys 195 200 205

Ile Lys Gln Ile Leu Pro Thr Ile Tyr Lys Arg Lys Asn Leu Ser Leu 210 215 Phe Leu Ser Ile Ser Leu Leu Ile Phe Trp Gly Ser Ser Leu Leu Gly 230 235 Ala Arg Leu Tyr Trp Met Gly Asn Lys Pro Pro Ser Phe Ser Asn Ser 245 250 Asp Asn Pro Ala Ala Asp Ser Asp Ser Leu Leu Thr Arg Thr Leu Thr 260 Phe Phe Tyr Leu Pro Thr Lys Asn Leu Trp Leu Leu Xaa Pro Asp 275 280 Thr Leu Ser Phe Glu Trp Ser Met Asp Ala Val Pro Leu Leu Lys Thr 295 Val Cys Asp Trp Arg Asn Leu His Thr Val Gly Leu Leu Xaa Trp Asp 310 315 Ser Phe Ser Leu Ala 325 <210> 104 <211> 46 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (46) <223> Xaa equals stop translation <400> 104 Met Leu Leu Gln Phe Ser Ile Phe Phe Ala Pro Val Val Cys Leu Pro Lys Tyr Ser Pro Phe Met Lys Glu Glu Cys Lys Ala Asp Pro Thr Arg 2.5 Asp Tyr Lys Phe Leu Tyr Ile Tyr Ile Glu Arg Gly Thr Xaa 35 40 <210> 105 <211> 49 <212> .PRT <213> Homo sapiens <220> <221> SITE <222> (49) <223> Xaa equals stop translation <400> 105

Met Cys Gly Ile Phe Ser Ile Leu Cys Ile Lys Ile Phe Phe Leu Ile

10

```
Leu Gln Leu Phe Phe Tyr Phe Pro Leu Tyr Asn Cys Ile Phe Asn Thr
 Ser Ile Ser Ile Leu Asn Arg Val Leu Val Lys Lys Arg Ser Thr Phe
                             40
Xaa
<210> 106
<211> 66
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (66)
<223> Xaa equals stop translation
<400> 106
Met Tyr Leu Leu His Ser Ile Leu Phe Met Leu Cys Leu Val Gly Met
                        10
Val Glu Phe Asn Lys Ser Thr Arg Glu Cys Ile Leu Phe Lys Thr Leu
                                25
Trp Leu Ile Pro Leu Phe Thr Tyr Lys Leu Ala Tyr Leu Cys Glu Lys
Leu Lys Phe Val Lys Phe Cys Ala Ser Leu Leu Ile Ala Val Phe Asp
    50
His Xaa
65
<210> 107
<211> 46
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (46)
<223> Xaa equals stop translation
<400> 107
Met Thr Ala Phe Ile Thr Tyr Pro Leu Leu Phe Ile Cys Leu Pro Ser
                                   10
Val Ser His Phe Leu Pro Val Pro Thr Cys Leu Phe Pro Cys Glu Gly
            20
                                25
```

Leu Asn Cys Glu Pro Leu Arg Phe Asn Val Arg Ser Pro Xaa 35 40

```
<210> 108
   <211> 74
   <212> PRT
   <213> Homo sapiens
   <220>
   <221> SITE
   <222> (74)
   <223> Xaa equals stop translation
   <400> 108
   Met Pro His Leu Asn His Ser Leu Phe Leu Phe Leu Ser Val Gly Cys
                    5
                              10
   Ala Leu Ser Ala Gln Met Ala Phe His Gln Leu Asp Leu Glu Gln Pro
                                  25
  Glu Asp Ala Thr Leu Pro Ser Glu Pro Phe Phe His His Thr Val Val
                               40
  Pro Gln Arg Ser Phe Ser Arg Ile Leu Val Asn Met Gly Gln Leu Ser
       50
                          55
                                             60
  Glu Thr Leu Ala Glu Gln Gly Tyr Ile Xaa
 . 65
                      7.0
 <210> 109
  <211> 50
  <212> PRT
  <213> Homo sapiens
  <220>
  <221> SITE
  <222> (50)
<223> Xaa equals stop translation
  <400> 109
  Met Phe Pro Trp Cys Val Cys Val Ile Ala Cys Ile Ser Ala Val Thr
  Pro Leu Ile Gln Gly Phe Thr Phe Cys Ser Phe Ser Tyr Pro Gln Tyr
              20
                                 25
  Ser Thr Val Arg Tyr Phe Glu Arg Glu Thr Thr Leu Thr Leu Leu Leu
  Leu Xaa
    5.0
 <210> 110
 <211> 228
 <212> PRT
 <213> Homo sapiens
 <220>
 <221> SITE
 <222> (228)
```

<223> Xaa equals stop translation

<400> 110

Met Ala Ala Pro Ile Ile Gly Val Thr Pro Met Phe Ala Val Cys Phe $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Phe Gly Phe Gly Leu Gly Lys Lys Leu Gln Gln Lys His Pro Glu Asp $20 \\ 25 \\ 30$

Val Leu Ser Tyr Pro Gln Leu Phe Ala Ala Gly Met Leu Ser Gly Val \$35\$

Gln Ile Gln Ala Ser Ser Gly Glu Ser Lys Tyr Thr Gly Thr Leu Asp 65 70 75 80

Cys Ala Lys Lys Leu Tyr Gln Glu Phe Gly Ile Arg Gly Ile Tyr Lys $85 \hspace{1cm} 90 \hspace{1cm} 95$

Gly Thr Val Leu Thr Leu Met Arg Asp Val Pro Ala Ser Gly Met Tyr $100 \hspace{1cm} 105 \hspace{1cm} 110 \hspace{1cm}$

Phe Met Thr Tyr Glu Trp Leu Lys Asn Ile Phe Thr Pro Glu Gly Lys 115 120 125

Arg Val Ser Glu Leu Ser Ala Pro Arg Ile Leu Val Ala Gly Gly Ile 130 $$135\$

Ala Gly Ile Phe Asn Trp Ala Val Ala Ile Pro Pro Asp Val Leu Lys 145 150 150 160

Ser Arg Phe Gln Thr Ala Pro Pro Gly Lys Tyr Pro Asn Gly Phe Arg 165 \$170\$

Asp Val Leu Arg Glu Leu Ile Arg Asp Glu Gly Val Thr Ser Leu Tyr \$180\$

Lys Gly Phe Asn Ala Val Met Ile Arg Ala Phe Pro Ala Asn Ala Ala 195 200 205

Cys Phe Leu Gly Phe Glu Val Ala Met Lys Phe Leu Asn Trp Ala Thr 210 215 220

Pro Asn Leu Xaa

225

<210> 111

<211> 74 <212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (74)

<223> Xaa equals stop translation

```
64
Met Thr Arg Ala Thr Thr Glu Phe Pro Ser Pro Lys Phe Ser Thr Leu
                 5
                                     10
                                                          1.5
Leu Val Leu Val Leu Ser Leu Leu Arg Ala His Ile Leu Ile Pro Lys
                                  25
Glu Pro Leu Gln Ser Ser Cys Leu Leu Lys Thr Leu Tyr Trp Ala Cys
                            40
Ser Cys Asn Ser Asp Phe Ile Arg Cys Ile Leu Arg Glu Val Ser Gly
      50
                         55
Lys Ile Trp Arg Phe Ser Lys Thr Leu Xaa
                     7.0
<210> 112
<211> 43
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (43)
<223> Xaa equals stop translation
<400> 112
Met Ile Tyr Phe Leu Cys Leu Ala Tyr Cys Lys Phe Phe Ile Leu Ile
His Ser Ser Asn Ile Ile Ala Thr Lys Lys Cys Leu Tyr Leu Asp Gln
Arg Gln Asp Phe Leu Cys Val Cys Phe Ala Xaa
         35
<210> 113
<211> 180
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (180)
<223> Xaa equals stop translation
<400> 113
Met Ala Cys Lys Gly Leu Leu Gln Gln Val Gln Gly Pro Arg Leu Pro
Trp Thr Arg Leu Leu Leu Leu Leu Val Phe Ala Val Gly Phe Leu
             20
Cys His Asp Leu Arg Ser His Ser Ser Phe Gln Ala Ser Leu Thr Gly
```

Arg Leu Leu Arg Ser Ser Gly Phe Leu Pro Ala Ser Gln Gln Ala Cys

13153.03

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justin .

<220>

50 Ala Lys Leu Tyr Ser Tyr Ser Leu Gln Gly Tyr Ser Trp Leu Gly Glu Thr Leu Pro Leu Trp Gly Ser His Leu Leu Thr Val Val Arg Pro Ser 9.0 Leu Gln Leu Ala Trp Ala His Thr Asn Ala Thr Val Ser Phe Leu Ser 105 Ala His Cys Ala Ser His Leu Ala Trp Phe Gly Asp Ser Leu Thr Ser 115 Leu Ser Gln Arg Leu Gln Ile Gln Leu Pro Asp Ser Val Asn Gln Leu . 135 Leu Arg Tyr Leu Arg Glu Leu Pro Leu Leu Phe His Gln Asn Val Leu 150 155 Leu Pro Leu Trp His Leu Leu Leu Glu Ala Leu Ala Trp Ala Gln Gly 170 Ala Leu Pro Xaa 180 <210> 114 <211> 47 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (47) <223> Xaa equals stop translation <400> 114 Met Val Trp Phe Ile Tyr Phe Val Leu Gln Gly Leu Phe Cys Pro Lys Asn Glu Gly Ala Ser Pro Gly Leu Gln Phe Pro Thr Leu Ser Leu Ala Gly His Ala Ser Pro Ala Leu Val Pro His Gly Met Gly Gly Xaa 35 40 <210> 115 <211> 81 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (34) <223> Xaa equals any of the naturally occurring L-amino acids

<222> (43)

```
66
<221> SITE
<222> (81)
<223> Xaa equals stop translation
<400> 115
Met Asn Val Thr Ser Val Ile Leu Val Leu Ile Leu Trp Asn Val Ile
Gly Val Ala Thr Trp Val His Gln Asn Thr Phe Leu Tyr Lys Arg Gln
Met Xaa Glu Leu Lys Arg Leu Lys Asp Arg Val Phe Cys Phe Phe Val
Leu Ile Trp Leu Leu Gly Ile Lys Ile Arg Pro Arg Ser Leu Lys Ile
                        55
Ser Asn Arg Gly Arg Pro Leu Ile Asp Leu Lys Ser Val Asn Ser Leu
                     70
Xaa
<210> 116
<211> 68
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (68)
<223> Xaa equals stop translation
<400> 116
Met Gln Pro Ala Cys Leu Ala Pro Cys Leu Asp Ala Leu Thr Ser Phe
                                    10
Cys Leu Gly Leu Leu Lys Leu Thr Phe Cys Leu Ala Phe Phe Pro Ser
                                 25
Gly Val Leu Glu Gly Glu Cys Ser Phe Phe Thr Met Ser Arg Ser Leu
Ser His Pro Arg Thr Leu His Arg Tyr Thr Thr Glu Arg Pro Ala His
Ser Arg His Xaa
65
<210> 117
<211> 43
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
```

<223> Xaa equals stop translation

<400> 117

Met Phe Leu Val Phe Trp Leu Leu Gly Ile Tyr Phe Cys His Leu Leu $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$

Val Ile Thr Val Leu Thr Lys Trp Ile Leu Ala Pro Pro Tyr Leu Met $20 \\ 25 \\ 30$

Ala Gln Thr Thr Pro Gln Ser Leu Tyr Xaa 35

<210> 118

<211> 212

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (212)

<223> Xaa equals stop translation

<400> 118

Met Ile Ser Leu Pro Gly Pro Leu Val Thr Asn Leu Leu Arg Phe Leu $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Phe Leu Gly Leu Ser Ala Leu Asp Val Ile Arg Gly Ser Leu Ser Leu 20 25 30

Thr Asn Leu Ser Ser Ser Met Ala Gly Val Tyr Val Cys Lys Ala His $35 \hspace{1cm} 40 \hspace{1cm} 45$

Gly Pro Gly Ala Ala Val Val Ala Gly Ala Val Val Gly Thr Leu Val 65 70 80

Gly Leu Gly Leu Leu Ala Gly Leu Val Leu Leu Tyr His Arg Arg Gly \$85\$ 90 95

Lys Ala Leu Glu Glu Pro Ala As
n Asp Ile Lys Glu Asp Ala Ile Ala 100 \$105\$

Pro Arg Thr Leu Pro Trp Pro Lys Ser Ser Asp Thr Ile Ser Lys Asn 115 \$120\$ 125

Gly Thr Leu Ser Ser Val Thr Ser Ala Arg Ala Leu Arg Pro Pro His 130 135 140

Gly Pro Pro Arg Pro Gly Ala Leu Thr Pro Thr Pro Ser Leu Ser Ser 145 \$150\$

Gln Ala Leu Pro Ser Pro Arg Leu Pro Thr Thr Asp Gly Ala His Pro \$165\$ \$170\$

Gln Pro Ile Ser Pro Ile Pro Gly Gly Val Ser Ser Ser Gly Leu Ser $180 \\ 185 \\ 190 \\ 190$

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Arg Met Gly Ala Val Pro Val Met Val Pro Ala Gln Ser Gln Ala Gly
           195
                               200
   Ser Leu Val Xaa
       210
  <210> 119
  <211> 44
  <212> PRT
  <213> Homo sapiens
  <220>
  <221> SITE
  <222> (44)
  <223> Xaa equals stop translation
  <400> 119
  Met Lys Leu Pro Trp Asn Ile Val Asn Ile Leu Lys Ala Ser Ala Leu
  Tyr Ala Leu Lys Trp Leu Leu Leu Ile Leu Tyr Tyr Val Ile Phe Thr
                                   25
  Leu Lys Lys Glu Lys Ile Ala Leu Leu Tyr Thr Xaa
                               40
 <210> 120
 <211> 127
 <212> PRT
 <213> Homo sapiens
 <220>
<221> SITE
 <222> (127)
 <223> Xaa equals stop translation
 Met Gly Thr Ser Ala Leu Trp Pro Phe Leu Pro Leu Leu Phe Leu Leu
                                      1.0
 Gly Phe Leu Phe Ser Ser Cys Gly Phe Pro Glu Ala Ser Phe Gly Pro
 Trp Val Val Val Arg Ala Glu Leu Trp Gly Cys Val Val Gly Ala Ala
          35
 Cys Val Leu Gly Leu Tyr Trp Gln Val Gly Gln Ser Ser Leu Asn Thr
 Leu Ala Arg Ser Gln Lys Pro Gly Leu Arg Val Gln Pro Gly Lys Pro
 65
                      7.0
 Gly Lys Leu Leu Pro Val Thr Phe Gln Met Leu Pro Pro Pro Cys Gly
                  85
                                                          95
 Gly Cys Cys Ser Pro Leu Gly Leu Cys Pro Ser Ser Gly Gly Ser Arg
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Met Trp Arg Arg Thr Trp Val Gly Ala Arg Ala Leu His Pro Xaa
         115
                             120
 <210> 121
 <211> 57
 <212> PRT
 <213> Homo sapiens
 <220>
 <221> SITE
 <222> (57)
 <223> Xaa equals stop translation
 <400> 121
 Met Phe Leu Lys Val Leu Val Phe Leu Ile Phe Phe Ser Pro Phe Ser
                                      10
 Ser Ser Leu Phe Ser Gly Glu Ala Val Arg Gly Arg Gly Ala Gly Leu
                                  25
                                                      3.0
 Gly Leu Gly Ile Gly Arg Gly Trp Thr Ser Cys Leu Ser Val Leu Asn
 Gly Cys Asp Gly Ala Arg Ser His Xaa
      50
<210> 122
<211> 46
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (46)
<223> Xaa equals stop translation
<400> 122
Met Trp Ser Ile Lys Leu Thr Cys Arg Leu Arg Gly Phe Trp Phe Trp
                                    10
Phe Trp Val Leu Phe Phe Cys Gly Gly Gly Ala Gly Ile Trp Lys Asn
Leu Ala Leu Tyr Val Thr Glu Ile Phe Phe Ala Arg Thr Xaa
         3.5
<210> 123
<211> 58
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (47)
```

35

<223> Xaa equals any of the naturally occurring L-amino acids <400> 123 . Met Arg Leu Ile Leu Ile Ile Gly Arg Leu Ala Leu Asp Ser Ile Ala 1.0 15 Gln Asn Ser Gln Asn Val Ser Gln Ser Ser Gln Gly Ser Tyr His His 2.0 Gly Ser Ser Pro Pro Arg Pro Val Arg Pro Leu Pro Gly Pro Xaa Arg Arg Arg Asp Pro Ser Leu Asp Cys Cys Ser 50 <210> 124 <211> 57 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (57) <223> Xaa equals stop translation <400> 124 Met Lys Ala Met Leu Gln Cys Phe Arg Phe Tyr Phe Met Arg Leu Phe Val Phe Leu Leu Thr Ser Gly Lys Met Ile Asp Ser Asp Ser Thr Met Gln Gly Cys Trp Tyr Gln Pro Glu Pro Tyr Arg Trp Gln Ser Leu Glu 35 40 Lys Trp Ser Gln Lys Met Glu Leu Xaa 50 55 <210> 125 <211> 273 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (273) <223> Xaa equals stop translation Met Trp Gly Asn Lys Phe Gly Val Leu Leu Phe Leu Tyr Ser Val Leu 10 Leu Thr Lys Gly Ile Glu Asn Ile Lys Asn Glu Ile Glu Asp Ala Ser Glu Pro Leu Ile Asp Pro Val Tyr Gly His Gly Ser Gln Ser Leu Ile

Asn Leu Leu Thr Gly His Ala Val Ser Asn Val Trp Asp Gly Asp 50

Arg Glu Cys Ser Gly Met Lys Leu Gly Ile His Glu Gln Ala Ala 65 70 75 80

Val Gly Phe Leu Thr Leu Met Glu Ala Leu Arg Tyr Cys Lys Val Gly 85 90 95

Ser Tyr Leu Lys Ser Pro Lys Phe Pro Ile Trp Ile Val Gly Ser Glu 100 105 110

Thr His Leu Thr Val Phe Phe Ala Lys Asp Met Ala Leu Val Ala Pro \$115\$

Glu Ala Pro Ser Glu Gln Ala Arg Arg Val Phe Gln Thr Tyr Asp Pro 130 $$140\,$

Glu Asp Asn Gly Phe Ile Pro Asp Ser Leu Leu Glu Asp Val Met Lys

Ala Leu Asp Leu Val Ser Asp Pro Glu Tyr Ile Asn Leu Met Lys Asn 165 170 175

Lys Leu Asp Pro Glu Gly Leu Gly Ile Ile Leu Leu Gly Pro Phe Leu 180 \$180\$

Gln Glu Phe Phe Pro Asp Gln Gly Ser Ser Gly Pro Glu Ser Phe Thr 195 \$200\$

Val Tyr His Tyr Asn Gly Leu Lys Gln Ser Asn Tyr Asn Glu Lys Val 210 215 220

Met Tyr Val Glu Gly Thr Ala Val Val Met Gly Phe Glu Asp Pro Met 225 230 235 240

Leu Gln Thr Asp Asp Thr Pro Ile Lys Arg Cys Leu Gln Thr Lys Trp \$245\$

Pro Tyr Ile Glu Leu Leu Trp Thr Thr Asp Arg Ser Pro Ser Leu Asn $260 \hspace{1.5cm} 265 \hspace{1.5cm} 265 \hspace{1.5cm} 270 \hspace{1.5cm}$

Xaa

<210> 126

<211> 281

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (281)

<223> Xaa equals stop translation

<400> 126

Met Ala Pro Ser Gly Ser Leu Ala Val Pro Leu Ala Val Leu Val Leu

inch.

0

Leu Leu Trp Gly Ala Pro Trp Thr His Gly Arg Arg Ser Asn Val Arg 20 25 30

Val Ile Thr Asp Glu Asn Trp Arg Glu Leu Leu Glu Gly Asp Trp Met 35 40 45

Ile Glu Phe Tyr Ala Pro Trp Cys Pro Ala Cys Gln Asn Leu Gln Pro $50 \hspace{1cm} 55 \hspace{1cm} 60 \hspace{1cm}$

Glu Trp Glu Ser Phe Ala Glu Trp Gly Glu Asp Leu Glu Val Asn Ile 65 70 75 80

Ala Lys Val Asp Val Thr Glu Gln Pro Gly Leu Ser Gly Arg Phe Ile $85 \hspace{0.5cm} 90 \hspace{0.5cm} 95 \hspace{0.5cm}$

Ile Thr Ala Leu Pro Thr Ile Tyr His Cys Lys Asp Gly Glu Phe Arg $100 \hspace{1.5cm} 105 \hspace{1.5cm} 110 \hspace{1.5cm}$

Arg Tyr Gln Gly Pro Arg Thr Lys Lys Asp Phe Ile Asn Phe Ile Ser \$115\$

Asp Lys Glu Trp Lys Ser Ile Glu Pro Val Ser Ser Trp Phe Gly Pro 130 135 140

Gly Ser Val Leu Met Ser Ser Met Ser Ala Leu Phe Gln Leu Ser Met 145 \$150\$ 155 160

Trp Ile Arg Thr Cys His Asn Tyr Phe Ile Glu Asp Leu Gly Leu Pro \$165\$ $$170^{\circ}$$ \$175\$

Val Trp Gly Ser Tyr Thr Val Phe Ala Leu Ala Thr Leu Phe Ser Gly 180 185 190

Leu Leu Gly Leu Cys Met Ile Phe Val Ala Asp Cys Leu Cys Pro

Ser Lys Arg Arg Arg Pro Gln Pro Tyr Pro Tyr Pro Ser Lys Lys Leu 210 215 220

Leu Ser Glu Ser Ala Gln Pro Leu Lys Lys Val Glu Glu Glu Gln Glu 225 230 235 240

Ala Asp Glu Glu Asp Val Ser Glu Glu Glu Ala Glu Ser Lys Glu Gly 245 250 255

Thr Asn Lys Asp Phe Pro Gln Asn Ala Ile Arg Gln Arg Ser Leu Gly
260 265 270

Pro Ser Leu Ala Thr Asp Lys Ser Xaa 275 280

<210> 127

<211> 215

<212> PRT

<213> Homo sapiens

<220> <221> SITE <222> (83)

<223> Xaa equals any of the naturally occurring L-amino acids

<220> <221> SITE

<222> (141) <223> Xaa equals any of the naturally occurring L-amino acids

<400> 127

Met Tyr Gly Lys Ser Ser Thr Arg Ala Val Leu Leu Leu Leu Gly Ile 1 5 10 15

Gln Leu Thr Ala Leu Trp Pro Ile Ala Ala Val Glu Ile Tyr Thr Ser $20\,$

Arg Val Leu Glu Ala Val Asn Gly Thr Asp Ala Arg Leu Lys Cys Thr $35 \hspace{1cm} 40 \hspace{1cm} 45 \hspace{1cm}$

Phe Ser Ser Phe Ala Pro Val Gly Asp Ala Leu Thr Val Thr Trp Asn 50 55 60

Phe Arg Pro Leu Asp Gly Gly Pro Glu Gln Phe Val Phe Tyr Tyr His 65 70 75 80

Ile Asp Xaa Phe Gln Pro Met Ser Gly Arg Phe Lys Asp Arg Val Ser 85 90 95

Leu Gln Phe Asp Asp Asp Gly Thr Tyr Thr Cys Gln Val Lys Asn Pro \$115\$

Pro Asp Val Asp Gly Val Ile Gly Asp Ile Arg Leu Xaa Val Val His 130 135 140

Thr Val Arg Phe Ser Glu Ile His Phe Leu Ala Leu Ala Ile Gly Ser 145 150 155 160

Ala Cys Ala Leu Met Ile Ile Ile Val Ile Val Val Val Leu Phe Gln $165 \\ 170 \\ 175$

His Tyr Arg Lys Lys Arg Trp Ala Glu Arg Ala His Lys Val Val Glu
180 185 190

Ile Lys Ser Lys Glu Glu Glu Arg Leu Asn Gln Glu Lys Lys Val Ser 195 200 205

Val Tyr Leu Glu Asp Thr Asp 210 215

<210> 128 <211> 295

<212> PRT

<213> Homo sapiens

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74
<220>
<221> SITE
<222> (188)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (211)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (295)
<223> Xaa equals stop translation
<400> 128
Met Pro Arg Gly Asp Ser Glu Gln Val Arg Tyr Cys Ala Arg Phe Ser
 1
                                      10
                                                          15
Tyr Leu Trp Leu Lys Phe Ser Leu Ile Ile Tyr Ser Thr Val Phe Trp
Leu Ile Gly Ala Leu Val Leu Ser Val Gly Ile Tyr Ala Glu Val Glu
Arg Gln Lys Tyr Lys Thr Leu Glu Ser Ala Phe Leu Ala Pro Ala Ile
                         55
Ile Leu Ile Leu Leu Gly Val Val Met Phe Met Val Ser Phe Ile Gly
Val Leu Ala Ser Leu Arg Asp Asn Leu Tyr Leu Leu Gln Ala Phe Met
                                     90
Tyr Ile Leu Gly Ile Cys Leu Ile Met Glu Leu Ile Gly Gly Val Val
Ala Leu Thr Phe Arg Asn Gln Thr Ile Asp Phe Leu Asn Asp Asn Ile
        115
Arg Arg Gly Ile Glu Asn Tyr Tyr Asp Asp Leu Asp Phe Lys Asn Ile
Met Asp Phe Val Gln Lys Lys Phe Lys Cys Cys Gly Gly Glu Asp Tyr
                    150
                                        155
Arg Asp Trp Ser Lys Asn Gln Tyr His Asp Cys Ser Ala Pro Gly Pro
                165
Leu Ala Cys Gly Val Pro Tyr Thr Cys Cys Ile Xaa Asn Thr Thr Glu
                                185
Val Val Asn Thr Met Cys Gly Tyr Lys Thr Ile Asp Lys Glu Arg Phe
        195
                            200
                                                205
Ser Val Xaa Asp Val Ile Tyr Val Arg Gly Cys Thr Asn Ala Val Ile
   210
                        215
                                            220
```

Ile Trp Phe Met Asp Asn Tyr Thr Ile Met Ala Gly Ile Leu Leu Gly

Ile Leu Leu Pro Gln Phe Leu Gly Val Leu Leu Thr Leu Leu Tyr Ile 245 250 255

Thr Arg Val Glu Asp Ile Ile Met Glu His Ser Val Thr Asp Gly Leu 260 265 270

Leu Gly Pro Gly Ala Lys Pro Ser Val Glu Ala Ala Gly Thr Gly Cys 275 280 285

Cys Leu Cys Tyr Pro Asn Xaa 290 295

<210> 129

<211> 43

<212> PRT

<213> Homo sapiens

<220>

<221> SITE <222> (43)

<223> Xaa equals stop translation

<400> 129

Met Tyr Asn Lys Leu Leu Leu Thr Val Val Thr Leu Phe Cys Tyr Gln
1 5 10 15

Ile Val Asp Phe Ile Tyr Ser Asn Tyr Ile Phe Ile Ser Ile Asn His

Pro Pro His Pro Pro Asn Ile Leu Val Phe Xaa 35

<210> 130

<211> 73

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (73)

<223> Xaa equals stop translation

<400> 130

Met Gly Asn Phe Thr Ser Tyr Leu Phe Leu Phe Ala Phe Ser Gly Ile 1 5 10 15

Ile Leu Ala Phe Ile Lys Asn Gly Leu Ala Ala Glu Ile Val Leu Ile $20 \hspace{1cm} 25 \hspace{1cm} 30$

Leu Ser Glu Ala Gly Cys Ser Gln Asp Lys Ser Lys Met Val Tyr Leu $35 \hspace{1cm} 40 \hspace{1cm} 45$

Trp Phe Cys Phe Phe Leu Leu Xaa 65

<210> 131

<211> 427

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (427)

<223> Xaa equals stop translation

<400> 131

Met Ile Val Phe Gly Trp Ala Val Phe Leu Ala Ser Arg Ser Leu Gly

Gln Gly Leu Leu Thr Leu Glu Glu His Ile Ala His Phe Leu Gly \$20\$

Thr Gly Gly Ala Ala Thr Thr Met Gly Asn Ser Cys Ile Cys Arg Asp \$35\$ \$40\$

Asn Ser Ala Val Pro Thr Ala Asp Thr Arg Ser Gln Pro Arg Asp Pro 65 70 75 80

Val Arg Pro Pro Arg Arg Gly Arg Gly Pro His Glu Pro Arg Arg Lys $85 \hspace{0.5cm} 90 \hspace{0.5cm} 95 \hspace{0.5cm}$

Lys Gln Asn Val Asp Gly Leu Val Leu Asp Thr Leu Ala Val Ile Arg $100 \hspace{1.5cm} 105 \hspace{1.5cm} 110 \hspace{1.5cm}$

Thr Leu Val Asp Asn Asp Gln Glu Pro Tyr Ser Met Ile Thr Leu His \$115\$ \$120\$ \$125\$

Glu Met Ala Glu Thr Asp Glu Gly Trp Leu Asp Val Val Gln Ser Leu 130 \$135\$

Ile Arg Val Ile Pro Leu Glu Asp Pro Leu Gly Pro Ala Val Ile Thr 145 150 155 160

Leu Leu Leu Asp Glu Cys Pro Leu Pro Thr Lys Asp Ala Leu Gln Lys 165 170 175

Leu Thr Glu Ile Leu Asn Leu Asn Gly Glu Val Ala Cys Gln Asp Ser 180 185 190

Ser His Pro Ala Lys His Arg Asn Thr Ser Ala Val Leu Gly Cys Leu 195 200 205

Ala Glu Lys Leu Ala Gly Pro Ala Ser Ile Gly Leu Leu Ser Pro Gly 210 215 220

Ile Leu Glu Tyr Leu Leu Gln Cys Leu Lys Leu Gln Ser His Pro Thr 225 \$230\$ 235 240

- Val Met Leu Phe Ala Leu Ile Ala Leu Glu Lys Phe Ala Gln Thr Ser \$255\$
- Glu Asn Lys Leu Thr Ile Ser Glu Ser Ser Ile Ser Asp Arg Leu Val\$260\$ \$265\$
- Thr Leu Glu Ser Trp Ala Asn Asp Pro Asp Tyr Leu Lys Arg Gln Val \$275\$
- Gly Phe Cys Ala Gln Trp Ser Leu Asp Asn Leu Phe Leu Lys Glu Gly 290 295 300
- Arg Gln Leu Thr Tyr Glu Lys Val Asn Leu Ser Ser Ile Arg Ala Met 305 \$310\$ 315 \$320
- Leu Asn Ser Asn Asp Val Ser Glu Tyr Leu Lys Ile Ser Pro His Gly \$325\$ \$330\$.
- Leu Glu Ala Arg Cys Asp Ala Ser Ser Phe Glu Ser Val Arg Cys Thr \$340\$ \$345\$
- Phe Cys Val Asp Ala Gly Val Trp Tyr Tyr Glu Val Thr Val Val Thr $355 \\ 360 \\ 365$
- Ser Gly Val Met Gln Ile Gly Trp Val Thr Arg Asp Ser Lys Phe Leu $370 \hspace{1cm} 375 \hspace{1cm} 380 \hspace{1cm}$
- Asn His Glu Gly Tyr Gly Ile Gly Asp Asp Glu Tyr Ser Cys Ala Tyr 385 \$390\$ \$395\$
- Asp Gly Cys Arg Gln Leu Ile Trp Tyr Asn Ala Arg Ser Ser Leu Thr \$405\$
- Tyr Thr His Ala Gly Lys Lys Glu Ile Gln Xaa 420 425
- <210> 132
- <211> 323
- <212> PRT
- <213> Homo sapiens
- <220>
- <221> SITE
- <222> (323)
- <223> Xaa equals stop translation
- <400> 132
- Met Pro Pro Arg Gly Pro Ala Ser Glu Leu Leu Leu Leu Arg Leu Leu $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$
- Leu Leu Gly Ala Ala Thr Ala Ala Pro Leu Ala Pro Arg Pro Ser Lys 20 25 30
- Glu Glu Leu Thr Arg Cys Leu Ala Glu Val Val Thr Glu Val Leu Thr $35 \ \ 40 \ \ 45$
- Val Gly Gln Val Gln Arg Gly Pro Cys Thr Ala Leu Leu His Lys Glu

Leu 65		Gly	Thr	Glu	Pro 70		Gly	/ Cys	Ala	Ser 75		Glu	Glu	Lys	Gly 80
Leu	Leu	Leu	Gly	Asp 85		Lys	Lys	Glr	Glu 90		Gly	. Lys	Met	Arg	Ser
Ser	Gln	Glu	Val 100	Arg	Asp	Glu	Glu	Glu 105		Glu	Val	Ala	Glu 110		Thr
His	Lys	Ser 115		Val	Gln	Glu	Gln 120		Ile	Arg	Met	Gln 125		His	Arg
Gln	Leu 130	His	Gln	Glu	Glu	Asp 135	Glu	Glu	Glu	Glu	Lys 140	Glu	Glu	Arg	Lys
Arg 145	Gly	Pro	Met	Glu	Thr 150	Phe	Glu	Asp	Leu	Trp 155	Gln	Arg	His	Leu	Glu 160
Asn	Gly	Gly	Asp	Leu 165	Gln	Lys	Arg	Va1	Ala 170	Glu	Lys	Ala	Ser	Asp 175	Lys
Glu	Thr	Ala	Gln 180	Phe	Gln	Ala	Glu	Glu 185	Lys	Gly	Val	Arg	Val 190	Leu	Gly
Gly	Asp	Arg 195	Ser	Leu	Trp	Gln	Gly 200	Ala	Glu	Arg	Gly	Gly 205	Gly	Glu	Arg
Arg	Glu 210	Asp	Leu	Pro	His	His 215	His	His	His	His	His 220	Gln	Pro	G1u	Ala
Glu 225	Pro	Arg	G1n	Glu	Lys 230	Glu	Glu	Ala	Ser	Glu 235	Arg	Glu	Val	Ser	Arg 240
Gly	Met	Lys	Glu	Glu 245	His	Gln	His	Ser	Leu 250	Glu	Ala	Gly	Leu	Met 255	Met
Val	Ser	Gly	Val 260	Thr	Thr	His	Ser	His 265	Arg	Cys	Trp	Pro	Cys 270	Thr	Thr
Arg	Ser	Ile 275	Thr	Ser	Gly	Ser	Gln 280	Trp	Pro	Arg	Leu	Thr 285	Pro	Arg	Leu
	Asn 290	Asn	Phe	Arg		Arg 295	Pro	Leu	Pro	Tyr	Thr 300	Ser	Thr	Leu	Leu
Tyr 305	Gly	Leu	Gln		Pro . 310	Arg	Trp	His	His	Cys 315	Thr	Glu	Ala	Ser	His 320
His	His	Xaa													

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<210> 133 <211> 56 <212> PRT <213> Homo sapiens

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79
 <220>
 <221> SITE
 <222> (56)
 <223> Xaa equals stop translation
 <400> 133
 Met Leu Phe Leu Arg Ser Ile Leu Trp Leu Ser Ser Leu Phe Phe Cys
 His Phe Val Pro Thr Ser His Ser Leu Gly Phe Gln Asn Ile Thr Ser
 Val Tyr Asn Ala Thr Leu Gln Gln Thr Val Phe Gln His Asp Ser Lys
                             40
 Thr Val Thr Thr Cys Phe Thr Xaa
<210> 134
<211> 76
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (76)
<223> Xaa equals stop translation
<400> 134
Met Phe Cys Val Phe Ile Leu Thr Phe Phe Met Val Phe Asn Leu Trp
Leu Ala Ala Thr Val Tyr His Val Tyr Gly Thr Cys Lys Lys Val Leu
                                 25
                                                      3.0
Asp Ile Gln Ile Leu Arg Asp Glu Ile Thr Phe Thr Tyr Lys Asn His
Phe Tyr Cys Gly Leu Thr Ala Leu Ser Ser Arg Ile Leu Asn Asp Ile
                        5.5
Thr Asn Ile Leu His Val Ile Cys Ser Phe Glu Xaa
<210> 135
<211> 335
<212> PRT
<213> Homo sapiens
<400> 135
Met Met Ala Arg Gln Lys Gly Ile Phe Tyr Leu Thr Leu Phe Leu Ile
                                    10
Leu Gly Thr Cys Thr Leu Phe Phe Ala Phe Glu Cys Arg Tyr Leu Ala
             20
```

Val Gln Leu Ser Pro Ala Ile Pro Val Phe Ala Ala Met Leu Phe Leu

Phe Ser Met Ala Thr Leu Leu Arg Thr Ser Phe Ser Asp Pro Gly Val 55 Ile Pro Arg Ala Leu Pro Asp Glu Ala Ala Phe Ile Glu Met Glu Ile Glu Ala Thr Asn Gly Ala Val Pro Gln Gly Gln Arg Pro Pro Pro Arg Ile Lys Asn Phe Gln Ile Asn Asn Gln Ile Val Lys Leu Lys Tyr Cys 105 Tyr Thr Cys Lys Ile Phe Arg Pro Pro Arg Ala Ser His Cys Ser Ile 120 Cys Asp Asn Cys Val Glu Arg Phe Asp His His Cys Pro Trp Val Gly 135 Asn Cys Val Gly Lys Arg Asn Tyr Arg Tyr Phe Tyr Leu Phe Ile Leu 155 Ser Leu Ser Leu Leu Thr Ile Tyr Val Phe Ala Phe Asn Ile Val Tyr 165 Val Ala Leu Lys Ser Leu Lys Ile Gly Phe Leu Glu Thr Leu Lys Glu Thr Pro Gly Thr Val Leu Glu Val Leu Ile Cys Phe Phe Thr Leu Trp 195 200 Ser Val Val Gly Leu Thr Gly Phe His Thr Phe Leu Val Ala Leu Asn 215 Gln Thr Thr Asn Glu Asp Ile Lys Gly Ser Trp Thr Gly Lys Asn Arg 235 240 Val Gln Asn Pro Tyr Ser His Gly Asn Ile Val Lys Asn Cys Cys Glu 245 Val Leu Cys Gly Pro Leu Pro Pro Ser Val Leu Asp Arg Arg Gly Ile Leu Pro Leu Glu Glu Ser Gly Ser Arg Pro Pro Ser Thr Gln Glu Thr 275 280 Ser Ser Ser Leu Leu Pro Gln Ser Pro Ala Pro Thr Glu His Leu Asn 295 Ser Asn Glu Met Pro Glu Asp Ser Ser Thr Pro Glu Glu Met Pro Pro 305 310 315 Pro Glu Pro Pro Glu Pro Pro Gln Glu Ala Ala Glu Ala Glu Lys 325 330

CONTRA

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81
 <212> PRT
 <213> Homo sapiens
 <220>
 <221> SITE
 <222> (66)
 <223> Xaa equals stop translation
 <400> 136
 Met Phe His Cys Trp Ser Leu Phe Leu Tyr Tyr Phe Ser Leu Ser Leu
 Ser Ser Tyr His Arg Lys Cys Ile Leu Leu Arg Met Lys Ile Lys Glu
 Gln Ser Arg Asp Val Pro Cys Gln Gly Ala Gln Gln Ser His Pro Lys
 Phe His Leu Asp His His Leu Pro Asp Tyr Pro His Thr Asn Leu Leu
                         55
Pro Xaa
 65
<210> 137
<211> 63
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (63)
<223> Xaa equals stop translation
<400> 137
Met Ala Val Arg Cys Ile Leu Ala Gly Gly Cys Leu Pro Ala Val Arg
Gly Thr Phe Ser Val Leu Leu Lys Gly Met Tyr Lys Pro Met Gly Asp
             20
                                                    3.0
Leu Ile Ser Cys Val Phe Arg Cys Val Ala Gly Gly Leu Gly Trp Gly
Gly Gly Ala Ser Glu Gln Cys Val Glu Ser Leu Val Val Thr Xaa
                         55
<210> 138
<211> 379
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (379)
<223> Xaa equals stop translation
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<400> 138
Met Ser Lys Glu Pro Leu Ile Leu Trp Leu Met Ile Glu Phe Trp Trp
1 5 10 15

Leu Tyr Leu Thr Pro Val Thr Ser Glu Thr Val Val Thr Glu Val Leu 20 25 30

Gly His Arg Val Thr Leu Pro Cys Leu Tyr Ser Ser Trp Ser His Asn $35 \hspace{1cm} 40 \hspace{1cm} 45$

Ser Asn Ser Met Cys Trp Gly Lys Asp Gln Cys Pro Tyr Ser Gly Cys $50 \\ 0 \\ 0 \\ 0$

Lys Glu Ala Leu Ile Arg Thr Asp Gly Met Arg Val Thr Ser Arg Lys 65 70 75 80

Ser Ala Lys Tyr Arg Leu Gln Gly Thr Ile Pro Arg Gly Asp Val Ser $85 \\ 90 \\ 95$

Leu Thr Ile Leu Asn Pro Ser Glu Ser Asp Ser Gly Val Tyr Cys Cys \$100\$ \$100 \$105

Arg Ile Glu Val Pro Gly Trp Phe Asn Asp Val Lys Ile Asn Val Arg 115 120 125

Leu Asn Leu Gln Arg Ala Ser Thr Thr Thr His Arg Thr Ala Thr Thr 130 $$135\$

Thr Thr Arg Arg Thr Thr Thr Thr Ser Pro Thr Thr Thr Arg Gln Met 145 150 155 160

Thr Thr Thr Pro Ala Ala Leu Pro Thr Thr Val Val Thr Thr Pro Asp \$165\$

Leu Thr Thr Gly Thr Pro Leu Gln Met Thr Thr Ile Ala Val Phe Thr 180 \$180\$

Thr Ala Asn Thr Cys Leu Ser Leu Thr Pro Ser Thr Leu Pro Glu Glu
195 200 205

Ala Thr Gly Leu Leu Thr Pro Glu Pro Ser Lys Glu Gly Pro Ile Leu 210 \$215\$

Thr Ala Glu Ser Glu Thr Val Leu Pro Ser Asp Ser Trp Ser Ser Ala 225 230 235 240

Glu Ser Thr Ser Ala Asp Thr Val Leu Leu Thr Ser Lys Glu Ser Lys 245 250 255

Val Trp Asp Leu Pro Ser Thr Ser His Val Ser Met Trp Lys Thr Ser 260 265 270

Asp Ser Val Ser Ser Pro Gln Pro Gly Ala Ser Asp Thr Ala Val Pro $275 \\ 280 \\ 285$

Glu Gln Asn Lys Thr Thr Lys Thr Gly Gln Met Asp Gly Ile Pro Met 290 \$295\$

Ser Met Lys Asn Glu Met Pro Ile Ser Gln Leu Leu Met Ile Ile Ala

G1313 SIBI

83

Thr Ser Ala Ile Val Val Ile Thr Ser Gly Ile Ala Ala Ile Val Leu

55

5.0

Ser Arg Tyr Leu Pro Ser Thr Pro Leu Arg Trp Thr Val Phe Ser Ser 65 70 75 80

Ser Val Alá Cys Ala Leu Leu Ser Leu Thr Cys Ala Leu Gly Leu Leu 85 90 95

Ala Ser Ile Ala Met Thr Phe Ala Thr Gln Gly Lys Ala Leu Leu Ala 100 \$105\$

Ala Cys Thr Phe Gly Ser Ser Glu Leu Leu Ala Leu Ala Pro Asp Cys 115 120 125

Pro Phe Asp Pro Thr Arg Ile Tyr Ser Ser Ser Leu Cys Leu Trp Gly
130 135 140

Ile Ala Leu Val Leu Cys Val Ala Glu As
n Val Phe Ala Val Arg Cys 145 $$ 150 $$ 150 $$ 160

Ala Gln Leu Thr His Gln Leu Leu Glu Leu Arg Pro Trp Trp Gly Lys \$165\$ \$170\$

Asp Leu Leu Ser Cys Thr Ser Ser Glu Pro Leu Thr Leu Xaa 195 200 205

<210> 141

<211> 221 <212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (221)

<223> Xaa equals stop translation

<400> 141

Met Pro Pro Arg Arg Pro Trp Asp Arg Glu Ala Gly Thr Leu Gln Val $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Leu Gly Ala Leu Ala Val Leu Trp Leu Gly Ser Val Ala Leu Ile Cys 20 25 30

Leu Leu Trp Gln Val Pro Arg Pro Pro Thr Trp Gly Gln Val Gln Pro 35 40 45

Ala Pro Gly Ser Arg Gly Pro Gly Ser Arg Gly Thr Pro Ala Ser Leu 65 70 75 80

Ser Leu Trp Lys Ala Ser Pro Arg Thr Cys His Leu Gln Pro Ala Ala 85 90 95

Pro Leu Pro Ser Leu Trp Ala Arg Pro Gly Cys Ser Cys Trp Thr Leu 100 105 110

Pro Arg Arg Ala Ser Thr Trp Leu His Thr Thr Gly Pro Ser Gln Gly 115 \$120\$

Leu Thr Ser Gly Ser Thr Thr Arg Leu Pro Ser Trp Glu Arg Leu Phe 130 135

Cys Arg Ser Cys Ser Ser Cys Trp Ala Gly Thr Phe Pro Trp Leu Trp 145 150 150 155

Pro Pro Ala Ala Arg His Trp Pro Gly His Pro Pro Thr Cys Arg Phe \$165\$ \$170\$ \$175\$

Pro Trp Val Phe Cys Thr Pro Asn Ser Gly Leu Trp Met Asp Gly Thr 195 200 205

Tyr Thr Trp Ala Val Pro Thr Trp Thr Gly Gly Leu Xaa 210 215 220

<210> 142

<211> 60

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (60)

<223> Xaa equals stop translation

<400> 142

Met Leu Leu Cys Ile Leu Ile Phe Lys Val His Leu Leu Leu Phe Cys $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Arg Ser Phe Ser Ala Phe Leu Asn Leu Lys Glu Arg Phe Leu Phe Leu 20 25 30

Ile Leu Val Trp Ile Phe Val Ala Phe Tyr Gly Cys Lys Tyr Ser Pro \$35\$ \$40\$ \$45\$

Leu Ser Phe Asp Ser Phe Lys Ser Leu Gly Ser Xaa 50 55 60

<210> 143

<211> 67

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (67)

<223> Xaa equals stop translation

<400> 143

Met Leu Leu Ile Ser Ala Val Gln Val Phe Ile Leu Leu Ser Pro Ser

86 5 10 15 Phe Tyr Leu Ile Leu Tyr Leu Leu Arg Pro Gly Gly Thr Gly Arg Gly 25 Leu Glu Pro Ile Cys Pro Ala Ala Glu Trp Gly Gly Trp Arg Asp Gly Tyr Leu Trp Leu Gln Tyr Gln Glu Pro Thr Val Ser Leu Asp Asn Trp 55 Gly Asn Xaa 65 <210> 144 <211> 59 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (59) <223> Xaa equals stop translation <400> 144 Met Val Ile Ser Ile Phe Phe Ser Leu Pro Phe Ser Thr Ser Ala Tyr 5 Thr Leu Ile Ala Pro Asn Ile Asn Arg Arg Asn Glu Ile Gln Arg Ile 25 . Ala Asp Arg Ser Trp Pro Thr Trp Arg Ser Gly Arg Ser Arg Thr Glu 40 Leu Asn Arg Phe Thr Trp Cys Pro Asp Gly Xaa 50 55 <210> 145 <211> 68 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (68) <223> Xaa equals stop translation <400> 145 Met Lys Gln His Gln Lys Leu Trp Arg Leu Gly Phe Leu Leu Cys Phe

Asm Leu Val Phe Cys Val Leu Gly Arg Arg His Pro Trp Pro Trp Ala 20 30

Val Arg Pro Leu Met Cys Val Tyr Ala Asp Arg Glu Leu Leu Gly Trp

45

40

3.5

Leu Leu Arg Trp Val Val Leu Leu Val Phe Ser Val Leu Lys Leu Ile 50 60

Phe Arg Leu Xaa

<210> 146

<211> 177

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (177)

<223> Xaa equals stop translation

:400> 146

Met Ala Ser Val Phe Val Cys Leu Leu Leu Ser Gly Leu Ala Val Phe $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Phe Leu Phe Pro Arg Ser Ile Asp Val Lys Tyr Ile Gly Val Lys Ser 20 25 30

Thr Asn Thr Leu Asn Ile Thr Asn Asn Asn Tyr Tyr Ser Val Glu Val50

Glu Asn Ile Thr Ala Gln Val Gln Phe Ser Lys Thr Val Ile Gly Lys $_{65}$ $_{70}$ $_{70}$ $_{75}$

Ala Arg Leu Asn Asn Ile Ser Ile Ile Gly Pro Leu Asp Met Lys Gln $85 \hspace{1.5cm} 90 \hspace{1.5cm} 95$

Ile Asp Tyr Thr Val Pro Thr Val Ile Ala Glu Glu Met Ser Tyr Met
100 105 110

Tyr Asp Phe Cys Thr Leu Ile Ser Ile Lys Val His Asn Ile Val Leu 115 120 125

Met Met Gl
n Val Thr Val Thr Thr Thr Tyr Phe Gly His Ser Glu Gl
n 130 135 140

Tyr Gln Leu Gly Gln Ser Glu Tyr Leu Asn Val Leu Gln Pro Gln Gln 175 $$170\,$

Xaa

<210> 147

<211> 120

<212> PRT

<213> Homo sapiens

8.8 <220> <221> SITE <222> (120) <223> Xaa equals stop translation Met Arg Arg Leu Leu Val Thr Ser Leu Val Val Val Leu Leu Trp Glu Ala Gly Ala Val Pro Ala Pro Lys Val Pro Ile Lys Met Gln Val 25 Lys His Trp Pro Ser Glu Gln Asp Pro Glu Lys Ala Trp Gly Ala Arg Val Val Glu Pro Pro Glu Lys Asp Asp Gln Leu Val Val Leu Phe Pro Val Gln Lys Pro Lys Leu Leu Thr Thr Glu Glu Lys Pro Arg Gly Thr Lys Ala Trp Met Glu Thr Glu Asp Thr Leu Gly Arg Val Leu Ser Pro Glu Pro Asp His Asp Ser Leu Tyr His Pro Pro Pro Glu Glu Asp Gln 100 105 Gly Glu Glu Arg Pro Arg Leu Xaa 115 <210> 148 <211> 265 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (265) <223> Xaa equals stop translation <400> 148 Met Pro Phe Arg Leu Leu Ile Pro Leu Gly Leu Leu Cys Ala Leu Leu 1.0 Pro Gln His His Gly Ala Pro Gly Pro Asp Gly Ser Ala Pro Asp Pro Ala His Tyr Arg Glu Arg Val Lys Ala Met Phe Tyr His Ala Tyr Asp Ser Tyr Leu Glu Asn Ala Phe Pro Phe Asp Glu Leu Arg Pro Leu Thr 5.0 Cys Asp Gly His Asp Thr Trp Gly Ser Phe Ser Leu Thr Leu Ile Asp

Ala Leu Asp Thr Leu Leu Ile Leu Gly Asn Val Ser Glu Phe Gln Arg

Val Val Glu Val Leu Gln Asp Ser Val Asp Phe Asp Ile Asp Val Asn 100 105 110

Ala Ser Val Phe Glu Thr Asn Ile Arg Val Val Gly Gly Leu Leu Ser

Ala His Leu Leu Ser Lys Lys Ala Gly Val Glu Val Glu Ala Gly Trp 130 135

Pro Cys Ser Gly Pro Leu Leu Arg Met Ala Glu Glu Ala Ala Arg Lys 145 \$150\$

Leu Leu Pro Ala Phe Gln Thr Pro Thr Gly Met Pro Tyr Gly Thr Val $165 \\ 170 \\ 170$

Asn Leu Leu His Gly Val Asn Pro Gly Glu Thr Pro Val Thr Cys Thr 180 185 190

Ala Gly Ile Gly Thr Phe Ile Val Glu Phe Ala Thr Leu Ser Ser Leu 195 200 205

Thr Gly Asp Pro Val Phe Glu Asp Val Ala Arg Val Ala Leu Met Arg 210 \$215\$

Leu Trp Glu Ser Arg Ser Asp Ile Gly Leu Val Gly Asn His Ile Asp 225 230 235

Val Leu Thr Gly Lys Gly Trp Pro Arg Thr Gln Ala Ser Gly Leu Ala \$245\$ \$250\$ \$250\$

Trp Thr Pro Thr Leu Ser Thr Trp Xaa 260 265

<210> 149

<211> 92 <212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (84)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (92)

<223> Xaa equals stop translation

<400> 149

Met Tyr Gly Lys Ser Ser Thr Arg Ala Val Leu Leu Leu Leu Gly Ile $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Gln Leu Thr Ala Leu Trp Pro Ile Ala Ala Val Glu Ile Tyr Thr Ser \$20\$

Arg Val Leu Glu Ala Val Asn Gly Thr Asp Ala Arg Leu Lys Cys Thr

Phe Ser Ser Phe Ala Pro Val Gly Asp Ala Leu Thr Val Thr Trp Asn 50 60

Phe Arg Pro Leu Asp Gly Gly Pro Glu Gln Phe Val Phe Tyr Tyr His 65 70 75 80

Ile Asp Pro Xaa Pro Thr His Glu Trp Ala Val Xaa

<210> 150

<211> 185

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (185)

<223> Xaa equals stop translation

<400> 150

Met Leu Phe Leu Phe Ser Met Ala Thr Leu Leu Arg Thr Ser Phe Ser $1 \hspace{1.5cm} 1 \hspace{1.5cm}$

Asp Pro Gly Val Ile Pro Arg Ala Leu Pro Asp Glu Ala Ala Phe Ile \$20\$ \$25\$ \$30

Glu Met Glu Ile Glu Ala Thr Asn Gly Ala Val Pro Gln Gly Gln Arg \$35\$

Leu Lys Tyr Cys Tyr Thr Cys Lys Ile Phe Arg Pro Pro Arg Ala Ser 65 70 75 80

His Cys Ser Ile Cys Asp Asn Cys Val Glu Arg Phe Asp His His Cys 85 90 95

Pro Trp Val Gly Asn Cys Val Gly Lys Arg Asn Tyr Arg Tyr Phe Tyr 100 105 110

Leu Phe Ile Leu Ser Leu Ser Leu Leu Thr Ile Tyr Val Phe Ala Phe 115 120 125

Asn Ile Val Tyr Val Ala Leu Lys Ser Leu Lys Ile Gly Phe Leu Glu 130 $$^{\circ}$$ 140

Thr Leu Lys Gly Asn Ser Trp Asn Cys Ser Arg Ser Pro His Leu Leu 145 150 155 160

Leu Tyr Thr Leu Val Arg Arg Gly Thr Asp Trp Ile.Ser Tyr Phe Pro 165 170 175

Arg Gly Ser Gln Pro Asp Asn Gln Xaa 180

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<210> 151
  <211> 21
  <212> PRT
 <213> Homo sapiens
  <400> 151
 Gly Ser Phe Leu Gly Ser Thr Asn Arg Asp Arg Glu Ser Leu Ala Phe
   1
                    5
 Gln Phe Cys Ala Gly
              20
 <210> 152
 <211> 19
 <212> PRT
 <213> Homo sapiens
 <400> 152
 His Glu Val Glu Glu Lys Phe Asn Ser Pro Leu Met Gln Thr Glu Gly
                   5
                                     10
Asp Ile Gln
<210> 153
<211> 423
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (193)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
 <221> SITE
 <222> (215)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (242)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (361)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (378)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 153
Ile Asn Phe Ser Glu Met Thr Leu Gln Glu Leu Val His Lys Ala Ala
```

92 10 15 Ser Cys Tyr Met Asp Arg Val Ala Val Cys Phe Asp Glu Cys Asn Asn 2.5 Gln Leu Pro Val Tyr Tyr Thr Tyr Lys Thr Val Val Asn Ala Ala Ser Glu Leu Ser Asn Phe Leu Leu His Cys Asp Phe Gln Gly Ile Arg Glu Ile Gly Leu Tyr Cys Gln Pro Gly Ile Asp Leu Pro Ser Trp Ile Leu Gly Ile Leu Gln Val Pro Ala Ala Tyr Val Pro Ile Glu Pro Asp 85 Ser Pro Pro Ser Leu Ser Thr His Phe Met Lys Lys Cys Asn Leu Lys Tyr Ile Leu Val Glu Lys Lys Gln Ile Asn Lys Phe Lys Ser Phe His 115 120 Glu Thr Leu Leu Asn Tyr Asp Thr Phe Thr Val Glu His Asn Asp Leu Val Leu Phe Arg Leu His Trp Lys Asn Thr Glu Val Asn Leu Met Leu 155 Asn Asp Gly Lys Glu Lys Tyr Glu Lys Glu Lys Ile Lys Ser Ile Ser 165 170 Ser Glu His Val Asn Glu Glu Lys Ala Glu Glu His Met Asp Leu Arg 185 Xaa Lys His Cys Leu Ala Tyr Val Leu His Thr Ser Gly Thr Thr Gly 200 Ile Pro Lys Ile Val Arg Xaa Pro His Lys Cys Ile Val Pro Asn Ile Gln His Phe Arg Val Leu Phe Asp Ile Thr Gln Glu Asp Val Leu Phe Leu Xaa Ser Pro Leu Thr Phe Asp Pro Ser Val Val Glu Ile Phe Leu 245 Ala Leu Ser Ser Gly Ala Ser Leu Leu Ile Val Pro Thr Ser Val Lys 265 Leu Leu Pro Ser Lys Leu Ala Ser Val Leu Phe Ser His His Arg Val 280 Thr Val Leu Gln Ala Thr Pro Thr Leu Leu Arg Arg Phe Gly Ser Gln 290

Leu Ile Lys Ser Thr Val Leu Ser Ala Thr Thr Ser Leu Arg Val Leu

315

310

Ala Leu Gly Gly Glu Ala Phe Pro Ser Leu Thr Val Leu Arg Ser Trp 325 330 335

Glu Val Ser Ser Trp Ala Thr Ile Xaa Arg Ile Pro Glu Lys Thr Leu 355 360 . 365

Asn Ser Thr Leu Lys Cys Glu Leu Pro Xaa Gln Leu Gly Phe Pro Leu 370 380

Leu Gly Thr Val Val Glu Val Arg Asp Thr Asn Gly Phe Thr Ile Gln 385 \$390\$

Glu Gly Ser Gly Gln Val Phe Leu Gly Cys Phe Ile Phe Val Asp Trp \$405\$

Glu Phe Phe Phe Gln Glu Lys 420

<210> 154

<211> 44

<212> PRT

<213> Homo sapiens

<400> 154

Ile Asn Phe Ser Glu Met Thr Leu Gln Glu Leu Val His Lys Ala Ala 1 5 10 15

Ser Cys Tyr Met Asp Arg Val Ala Val Cys Phe Asp Glu Cys Asn Asn 20 25 30

Gln Leu Pro Val Tyr Tyr Thr Tyr Lys Thr Val Val

<210> 155

<211> 47

<212> PRT

<213> Homo sapiens

<400> 155

Asn Ala Ala Ser Glu Leu Ser Asn Phe Leu Leu Leu His Cys Asp Phe $1 \hspace{1cm} 1 \hspace{1cm} 15$

Gln Gly Ile Arg Glu Ile Gly Leu Tyr Cys Gln Pro Gly Ile Asp Leu $20 \hspace{1.5cm} 25 \hspace{1.5cm} 30 \hspace{1.5cm}$

Pro Ser Trp Ile Leu Gly Ile Leu Gln Val Pro Ala Ala Tyr Val

<210> 156

<211> 46

<212> PRT

<213> Homo sapiens

```
<400> 156
  Pro Ile Glu Pro Asp Ser Pro Pro Ser Leu Ser Thr His Phe Met Lys
 Lys Cys Asn Leu Lys Tyr Ile Leu Val Glu Lys Lys Gln Ile Asn Lys
 Phe Lys Ser Phe His Glu Thr Leu Leu Asn Tyr Asp Thr Phe
         35
 <210> 157
 <211> 47
 <212> PRT
 <213> Homo sapiens
 <400> 157
 Thr Val Glu His Asn Asp Leu Val Leu Phe Arg Leu His Trp Lys Asn
                                     10
 Thr Glu Val Asn Leu Met Leu Asn Asp Gly Lys Glu Lys Tyr Glu Lys
              20
                                  25
 Glu Lys Ile Lys Ser Ile Ser Ser Glu His Val Asn Glu Glu Lys
                            4.0
<210> 158
<211> 46
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (9)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (31)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 158
Ala Glu Glu His Met Asp Leu Arg Xaa Lys His Cys Leu Ala Tyr Val
Leu His Thr Ser Gly Thr Thr Gly Ile Pro Lys Ile Val Arg Xaa Pro
His Lys Cys Ile Val Pro Asn Ile Gln His Phe Arg Val Leu
         3.5
                             40
<210> 159
<211> 48
<212> PRT
<213> Homo sapiens
<220>
```

<213> Homo sapiens

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95
  <221> SITE
   <222> (12)
   <223> Xaa equals any of the naturally occurring L-amino acids
   <400> 159
   Phe Asp Ile Thr Gln Glu Asp Val Leu Phe Leu Xaa Ser Pro Leu Thr
                     5
                                        10
   Phe Asp Pro Ser Val Val Glu Ile Phe Leu Ala Leu Ser Ser Gly Ala
  Ser Leu Leu Ile Val Pro Thr Ser Val Lys Leu Leu Pro Ser Lys Leu
                               40
  <210> 160
  <211> 46
  <212> PRT
  <213> Homo sapiens
  <400> 160
  Ala Ser Val Leu Phe Ser His His Arg Val Thr Val Leu Gln Ala Thr
   1
                                      10
 Pro Thr Leu Leu Arg Arg Phe Gly Ser Gln Leu Ile Lys Ser Thr Val
               20
 Leu Ser Ala Thr Thr Ser Leu Arg Val Leu Ala Leu Gly Gly
                               40
                                                   45
 <210> 161
 <211> 47
 <212> PRT
 <213> Homo sapiens
 <220>
 <221> SITE
 <222> (37)
 <223> Xaa equals any of the naturally occurring L-amino acids
 <400> 161
 Glu Ala Phe Pro Ser Leu Thr Val Leu Arg Ser Trp Arg Gly Glu Gly
 Asn Lys Thr Gln Ile Phe Asn Val Tyr Gly Ile Thr Glu Val Ser Ser
             2.0
                                  25
                                                      30
Trp Ala Thr Ile Xaa Arg Ile Pro Glu Lys Thr Leu Asn Ser Thr
          35
                              40
 <210> 162
 <211> 52
 <212> PRT
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<220>
  <221> SITE
  <222> (7)
  <223> Xaa equals any of the naturally occurring L-amino acids
  Leu Lys Cys Glu Leu Pro Xaa Gln Leu Gly Phe Pro Leu Leu Gly Thr
                                                         15
 Val Val Glu Val Arg Asp Thr Asn Gly Phe Thr Ile Gln Glu Gly Ser
                                  25
 Gly Gln Val Phe Leu Gly Cys Phe Ile Phe Val Asp Trp Glu Phe Phe
 Phe Gln Glu Lys
      50
<210> 163
 <211> 43
 <212> PRT
 <213> Homo sapiens
<400> 163
 Glu Ala Lys Ala Gln Phe Trp Leu Leu His Ser Tyr Leu Phe Cys His
 1
                             10
Ser Ser Asn Val Pro Asp Leu Leu Arg Pro Arg Met Thr Asn Asp Ser
 Glu Gly Lys Met Gly Phe Lys His Pro Lys Ile
         3.5
<210> 164
<211> 40
 <212> PRT
 <213> Homo sapiens
<400> 164
 Gly Thr Ser Gly Asp Gly Ala Lys Met Ile Ser Gly His Leu Leu Gln
Glu Pro Thr Gly Ser Pro Val Val Ser Glu Glu Pro Leu Asp Leu Leu
Pro Thr Leu Asp Leu Arg Gln Glu
         35
<210> 165
<211> 396
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
```

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<222> (6)
  <223> Xaa equals any of the naturally occurring L-amino acids
 <220>
 <221> SITE
 <222> (56)
 <223> Xaa equals any of the naturally occurring L-amino acids
 <220>
 <221> SITE
 <222> (67)
 <223> Xaa equals any of the naturally occurring L-amino acids
 <220>
 <221> SITE
 <222> (113)
 <223> Xaa equals any of the naturally occurring L-amino acids
 <220>
 <221> SITE
 <222> (130)
 <223> Xaa equals any of the naturally occurring L-amino acids
 <220>
 <221> SITE
 <222> (137)
 <223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (139)
<223> Xaa equals any of the naturally occurring L-amino acids
·<220>
<221> SITE
<222> (211)
<223> Xaa equals any of the naturally occurring L-amino acids
 <220>
 <221> SITE
 <222> (222)
 <223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (224)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (227)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (280)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 165
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- Leu Thr Thr Glu Glu Xaa Cys Met Leu Gly Ser Ala Leu Cys Pro Phe
 1 10 15
- Gln Gly Asn Phe Thr Ile Ile Leu Tyr Gly Arg Ala Asp Glu Gly Ile \$20\$
- Gln Pro Asp Pro Tyr Tyr Gly Leu Lys Tyr Ile Gly Val Gly Lys Gly $35 \ \ 40 \ \ 45$
- Gly Ala Leu Glu Leu His Gly Xaa Lys Lys Leu Ser Trp Thr Phe Leu 50 60
- Asn Lys Xaa Leu His Pro Gly Gly Met Ala Glu Gly Gly Tyr Phe Phe 65 70 75 80
- Glu Arg Ser Trp Gly His Arg Gly Val Ile Val His Val Ile Asp Pro $85 \hspace{0.25in} 90 \hspace{0.25in} 95$
- Xaa Lys Glu Ser Glu Arg Leu Val Gln Tyr Leu Asn Ala Val Pro Asp $115 \\ 120 \\ 125$
- Asp Asp Met Ala Arg Lys Ala Met Thr Lys Leu Gly Ser Lys His Phe 145 \$150\$
- Leu His Leu Gly Phe Arg His Pro Trp Ser Phe Leu Thr Val Lys Gly 165 170 175
- Asn Pro Ser Ser Val Glu Asp His Ile Glu Tyr His Gly His Arg 180 185 190
- Gly Ser Ala Ala Ala Arg Val Phe Lys Leu Phe Gln Thr Glu His Gly 195 200 205
- Glu Tyr Xaa Asn Val Ser Leu Ser Ser Glu Trp Val Gln Xaa Val Xaa 210 220
- Trp Thr Xaa Trp Phe Asp His Asp Lys Val Ser Gln Thr Lys Gly Gly 225 230 235 240
- Glu Lys Ile Ser Asp Leu Trp Lys Ala His Pro Gly Lys Ile Cys Asn \$245\$
- Arg Pro Ile Asp Ile Gln Ala Thr Thr Met Asp Gly Val Asn Leu Ser 260 265 270
- Thr Glu Val Val Tyr Lys Lys Xaa Gln Asp Tyr Arg Phe Ala Cys Tyr 275 280 285
- Asp Arg Gly Arg Ala Cys Arg Ser Tyr Arg Val Arg Phe Leu Cys Gly 290 295 300
- Lys Pro Val Arg Pro Lys Leu Thr Val Thr Ile Asp Thr Asn Val Asn 305 \$310\$

Ser Thr Ile Leu Asn Leu Glu Asp Asn Val Gln Ser Trp Lys Pro Gly 330

Asp Thr Leu Val Ile Ala Ser Thr Asp Tyr Ser Met Tyr Gln Ala Glu 340 345

Glu Phe Gln Val Leu Pro Cys Arg Ser Cys Ala Pro Asn Gln Val Lys

Val Ala Gly Lys Pro Met Tyr Leu His Ile Gly Gly Arg Arg Gly Arg 375

Glu Ser Arg Val Asp Glu Leu Thr Ser Arg Arg Pro 385 390

<210> 166

<211> 44

<212> PRT <213> Homo sapiens

<220>

<221> SITE

<222> (6)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 166

Leu Thr Thr Glu Glu Xaa Cys Met Leu Gly Ser Ala Leu Cys Pro Phe 10 1.5

Gln Gly Asn Phe Thr Ile Ile Leu Tyr Gly Arg Ala Asp Glu Gly Ile

Gln Pro Asp Pro Tyr Tyr Gly Leu Lys Tyr Ile Gly 35

<210> 167

<211> 42

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (12)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (23)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 167

Val Gly Lys Gly Gly Ala Leu Glu Leu His Gly Xaa Lys Lys Leu Ser

Trp Thr Phe Leu Asn Lys Xaa Leu His Pro Gly Gly Met Ala Glu Gly 20 25

```
Gly Tyr Phe Phe Glu Arg Ser Trp Gly His
         35
                             40
<210> 168
<211> 46
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (27)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (44)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 168
Arg Gly Val Ile Val His Val Ile Asp Pro Lys Ser Gly Thr Val Ile
                                    1.0
His Ser Asp Arg Phe Asp Thr Tyr Arg Ser Xaa Lys Glu Ser Glu Arg
Leu Val Gln Tyr Leu Asn Ala Val Pro Asp Gly Xaa Ile Leu
                             40
<210> 169
<211> 41
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (5)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (7)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 169
Ser Val Ala Val Xaa Asp Xaa Gly Ser Arg Asn Leu Asp Asp Met Ala
                                    10 -
Arg Lys Ala Met Thr Lys Leu Gly Ser Lys His Phe Leu His Leu Gly
Phe Arg His Pro Trp Ser Phe Leu Thr
        35
```

<210> 170 <211> 44

```
<212> PRT
  <213> Homo sapiens
 <220>
 <221> SITE
 <222> (38)
 <223> Xaa equals any of the naturally occurring L-amino acids
 Val Lys Gly Asn Pro Ser Ser Ser Val Glu Asp His Ile Glu Tyr His
                                     10
 Gly His Arg Gly Ser Ala Ala Ala Arg Val Phe Lys Leu Phe Gln Thr
              2.0
                                  25
 Glu His Gly Glu Tyr Xaa Asn Val Ser Leu Ser Ser
                             40
 <210> 171
 <211> 43
 <212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (5)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (7)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (10)
<223> Xaa equals any of the naturally occurring L-amino acids
 <400> 171
 Glu Trp Val Gln Xaa Val Xaa Trp Thr Xaa Trp Phe Asp His Asp Lys
Val Ser Gln Thr Lys Gly Glu Lys Ile Ser Asp Leu Trp Lys Ala
                                 2.5
His Pro Gly Lys Ile Cys Asn Arg Pro Ile Asp
<210> 172
<211> 43
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (20)
<223> Xaa equals any of the naturally occurring L-amino acids
```

```
<400> 172
 Ile Gln Ala Thr Thr Met Asp Gly Val Asn Leu Ser Thr Glu Val Val
           5
 Tyr Lys Lys Xaa Gln Asp Tyr Arg Phe Ala Cys Tyr Asp Arg Gly Arg
Ala Cys Arg Ser Tyr Arg Val Arg Phe Leu Cys
<210> 173
<211> 45
<212> PRT
<213> Homo sapiens
<400> 173
Gly Lys Pro Val Arg Pro Lys Leu Thr Val Thr Ile Asp Thr Asn Val
Asn Ser Thr Ile Leu Asn Leu Glu Asp Asn Val Gln Ser Trp Lys Pro
                                 25
Gly Asp Thr Leu Val Ile Ala Ser Thr Asp Tyr Ser Met
                             40
<210> 174
<211> 48
<212> PRT
<213> Homo sapiens
<400> 174
Tyr Gln Ala Glu Glu Phe Gln Val Leu Pro Cys Arg Ser Cys Ala Pro
Asn Gln Val Lys Val Ala Gly Lys Pro Met Tyr Leu His Ile Gly Gly
             20
Arg Arg Gly Arg Glu Ser Arg Val Asp Glu Leu Thr Ser Arg Arg Pro
         35
                            40
```

Phe Asp Ile Arg Tyr Ala Asn Leu 20

```
<210> 176
<211> 39
<212> PRT
<213> Homo sapiens
<400> 176
Gly Glu Val Glu Ala Gly Gln Gly Lys Arg Arg Val Ser Leu Gly Glu
Ser Thr Leu Gly Pro Pro Cys Arg Gly Thr Pro Ser Thr Leu Arg Pro
                                 25
Ala Ala Gln Gln Ala Arg Arg
         35
<210> 177
<211> 25
<212> PRT
<213> Homo sapiens
<400> 177
Gln Ser Lys Thr Pro Asp Pro Val Ser Lys Lys Phe Pro Ser Ser
                                    10
Gln Gly Val Val Glu Ala Glu Ser Val
             20
<210> 178
<211> 348
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (309)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (341)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 178
Cys Phe Cys Phe Leu Leu Pro Leu Leu Pro Ser Arg Trp Glu Pro Ser
                                     10
Arg Arg Glu Gly Gly Glu Met Ile Ala Glu Leu Val Ser Ser Ala
Leu Gly Leu Ala Leu Tyr Leu Asn Thr Leu Ser Ala Asp Phe Cys Tyr
        35
Asp Asp Ser Arg Ala Ile Lys Thr Asn Gln Asp Leu Leu Pro Glu Thr
Pro Trp Thr His Ile Phe Tyr Asn Asp Phe Trp Gly Thr Leu Leu Thr
```

7.5

70

His Ser Gly Ser His Lys Ser Tyr Arg Pro Leu Cys Thr Leu Ser Phe 85 90 95

Arg Leu Asn His Ala Ile Gly Gly Leu Asn Pro Trp Ser Tyr His Leu $100 \hspace{1cm} 105 \hspace{1cm} 110$

Val Asn Val Leu Leu His Ala Ala Val Thr Gly Leu Phe Thr Ser Phe \$115\$

Ser Lys Ile Leu Leu Gly Asp Gly Tyr Trp Thr Phe Met Ala Gly Leu $130\,$

Met Phe Ala Ser His Pro Ile His Thr Glu Ala Val Ala Gly Ile Val 145 150 155 160

Gly Arg Ala Asp Val Gly Ala Ser Leu Phe Phe Leu Leu Ser Leu Leu $165 \hspace{1.5cm} 170 \hspace{1.5cm} 175$

Gly Trp Phe Leu Gly Ser Gly Leu Cys Ala Gly Cys Ser Met Leu Trp \$195\$

Lys Glu Gln Gly Val Thr Val Leu Ala Val Ser Ala Val Tyr Asp Val 210 215 220

Phe Val Phe His Arg Leu Lys Ile Lys Gln Ile Leu Pro Thr Ile Tyr 225 230 . 235 240

Lys Arg Lys Asn Leu Ser Leu Phe Leu Ser Ile Ser Leu Leu Ile Phe 245 \$250\$

Trp Gly Ser Ser Leu Leu Gly Ala Arg Leu Tyr Trp Met Gly Asn Lys \$260\$ \$265\$ \$270\$

Pro Pro Ser Phe Ser Asn Ser Asn Pro Ala Ala Asp Ser Asp Ser 275 280 285

Leu Leu Thr Arg Thr Leu Thr Phe Phe Tyr Leu Pro Thr Lys Asn Leu 290 295 300

Trp Leu Leu Kaa Pro Asp Thr Leu Ser Phe Glu Trp Ser Met Asp 305 310 315 320

Ala Val Pro Leu Leu Lys Thr Val Cys Asp Trp Arg Asn Leu His Thr 325 330 - 335

Val Gly Leu Leu Xaa Trp Asp Ser Phe Ser Leu Ala 340 345

<210> 179

<211> 43

<212> PRT

<213> Homo sapiens

```
105
 <400> 179
 Cys Phe Cys Phe Leu Leu Pro Leu Leu Pro Ser Arg Trp Glu Pro Ser
 Arg Arg Glu Gly Gly Glu Met Ile Ala Glu Leu Val Ser Ser Ala
                                 25
 Leu Gly Leu Ala Leu Tyr Leu Asn Thr Leu Ser
                             40
 <210> 180
 <211> 44
 <212> PRT
 <213> Homo sapiens
<400> 180
Ala Asp Phe Cys Tyr Asp Asp Ser Arg Ala Ile Lys Thr Asn Gln Asp
Leu Leu Pro Glu Thr Pro Trp Thr His Ile Phe Tyr Asn Asp Phe Trp
Gly Thr Leu Leu Thr His Ser Gly Ser His Lys Ser
                             40
<210> 181
<211> 43
<212> PRT
<213> Homo sapiens
<400> 181
Tyr Arg Pro Leu Cys Thr Leu Ser Phe Arg Leu Asn His Ala Ile Gly
Gly Leu Asn Pro Trp Ser Tyr His Leu Val Asn Val Leu Leu His Ala
Ala Val Thr Gly Leu Phe Thr Ser Phe Ser Lys
                            4.0
<210> 182
<211> 44
<212> PRT
<213> Homo sapiens
<400> 182
Ile Leu Leu Gly Asp Gly Tyr Trp Thr Phe Met Ala Gly Leu Met Phe
Ala Ser His Pro Ile His Thr Glu Ala Val Ala Gly Ile Val Gly Arg
            20
```

Ala Asp Val Gly Ala Ser Leu Phe Phe Leu Leu Ser 35

<220>

```
106
 <210> 183
 <211> 43
 <212> PRT
 <213> Homo sapiens
 <400> 183
 Leu Leu Cys Tyr Ile Lys His Cys Ser Thr Arg Gly Tyr Ser Ala Arg
 Thr Trp Gly Trp Phe Leu Gly Ser Gly Leu Cys Ala Gly Cys Ser Met
 Leu Trp Lys Glu Gln Gly Val Thr Val Leu Ala
 <210> 184
 <211> 47
 <212> PRT
 <213> Homo sapiens
<400> 184
Val Ser Ala Val Tyr Asp Val Phe Val Phe His Arg Leu Lys Ile Lys
Gln Ile Leu Pro Thr Ile Tyr Lys Arg Lys Asn Leu Ser Leu Phe Leu
Ser Ile Ser Leu Leu Ile Phe Trp Gly Ser Ser Leu Leu Gly Ala
         35
<210> 185
<211> 43
<212> PRT
<213> Homo sapiens
<400> 185
Arg Leu Tyr Trp Met Gly Asn Lys Pro Pro Ser Phe Ser Asn Ser Asp
Asn Pro Ala Ala Asp Ser Asp Ser Leu Leu Thr Arg Thr Leu Thr Phe
                                 25
Phe Tyr Leu Pro Thr Lys Asn Leu Trp Leu Leu
         35
<210> 186
<211> 41
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (2)
<223> Xaa equals any of the naturally occurring L-amino acids
```

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107
 <221> SITE
<222> (34)
 <223> Xaa equals any of the naturally occurring L-amino acids
  <400> 186
  Leu Xaa Pro Asp Thr Leu Ser Phe Glu Trp Ser Met Asp Ala Val Pro
  Leu Leu Lys Thr Val Cys Asp Trp Arg Asn Leu His Thr Val Gly Leu
                                  25
 Leu Xaa Trp Asp Ser Phe Ser Leu Ala
          35
 <210> 187
 <211> 24
 <212> PRT
 <213> Homo sapiens
 <400> 187
 His Asn Val Phe Lys Val Tyr Ser Cys Cys Ser Lys Val Arg Asn Cys
                                     10
Phe Ser Phe Lys Glu Lys Val Ser
  2.0
<210> 188
<211> 11
<212> PRT
 <213> Homo sapiens
<400> 188
 Asn Cys Met His Gly Lys Ile Thr Pro Phe Gln
<210> 189
 <211> 40
 <212> PRT
 <213> Homo sapiens
 <400> 189
 Glu Gln Ile Pro Lys Lys Val Gln Lys Ser Leu Gln Glu Thr Ile Gln
                                    10
 Ser Leu Lys Leu Thr Asn Gln Glu Leu Leu Arg Lys Gly Ser Ser Asn
Asn Gln Asp Val Val Ser Cvs Asp
       35
<210> 190
<211> 219
<212> PRT
<213> Homo sapiens
```

<400> 190
Glu Gln Ile Pro Lys Lys Val Gln Lys Ser Leu Gln Glu Thr Ile Gln
1
5
10
15

Ser Leu Lys Leu Thr Asn Gln Glu Leu Leu Arg Lys Gly Ser Ser Asn 20 25 30

Asn Gln Asp Val Val Ser Cys Asp Met Ala Cys Lys Gly Leu Leu Gln $35 \ \ 40 \ \ 45$

Gln Val Gln Gly Pro Arg Leu Pro Trp Thr Arg Leu Leu Leu Leu 50 55 60

Leu Val Phe Ala Val Gly Phe Leu Cys His Asp Leu Arg Ser His Ser 65 70 75 80

Leu Pro Ala Ser Gln Gln Ala Cys Ala Lys Leu Tyr Ser Tyr Ser Leu 100 105 110

Gln Gly Tyr Ser Trp Leu Gly Glu Thr Leu Pro Leu Trp Gly Ser His 115 120 125

Leu Leu Thr Val Val Arg Pro Ser Leu Gln Leu Ala Trp Ala His Thr 130 $$\rm 130$

Asn Ala Thr Val Ser Phe Leu Ser Ala His Cys Ala Ser His Leu Ala 145 150 155 160

Trp Phe Gly Asp Ser Leu Thr Ser Leu Ser Gln Arg Leu Gln Ile Gln 165 170 175

Leu Leu Phe His Gln Asn Val Leu Leu Pro Leu Trp His Leu Leu Leu 195 \$200\$

Glu Ala Leu Ala Trp Ala Gln Gly Ala Leu Pro 210 215

<210> 191 <211> 23

<211> 23 <212> PRT

<213> Homo sapiens

<400> 191

Gly Thr Ser Phe Cys Ser His Leu Pro Ser Gln Arg Pro Leu His Leu $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$

Ser Gly Ser Ser Cys Leu Val

<210> 192

<211> 69

<212> PRT <213> Homo sapiens

<400> 192

Gly Thr Ser Phe Cys Ser His Leu Pro Ser Gln Arg Pro Leu His Leu $1 \ 5 \ 10 \ 15$

Ser Gly Ser Ser Cys Leu Val Met Val Trp Phe Ile Tyr Phe Val Leu
20 25 30

Gln Gly Leu Phe Cys Pro Lys Asn Glu Gly Ala Ser Pro Gly Leu Gln $35 \hspace{1cm} 40 \hspace{1cm} 45$

His Gly Met Gly Gly 65

<210> 193 <211> 58

<211> 58 <212> PRT

<213> Homo sapiens

<400> 193

Phe Cys Ile Gln Val Pro Gly Phe Val Ser Cys Trp Tyr Ala Ser Pro $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Asp Arg Pro Ser Cys Ile His Val Thr Arg Leu Tyr Leu Leu Gly Leu 20 25 \cdot 30

Ser Gln Ile Leu Ala Ser Tyr Ser Ser Ser Cys Pro Asn Ser Ile Leu $35 \hspace{1.5cm} 40 \hspace{1.5cm} 45 \hspace{1.5cm}$

Ser Leu Arg Asn Gly Gly Lys Ile Leu Arg

<210> 194

<211> 100

<212> PRT

<213> Homo sapiens

<400> 194

Phe Cys Ile Gin Val Pro Gly Phe Val Ser Cys Trp Tyr Ala Ser Pro $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Asp Arg Pro Ser Cys Ile His Val Thr Arg Leu Tyr Leu Leu Gly Leu $20 \\ 25 \\ 30$

Ser Gln Ile Leu Ala Ser Tyr Ser Ser Ser Cys Pro Asn Ser Ile Leu $35 \ \ 40 \ \ \ 45$

Ser Leu Arg Asn Gly Gly Lys Ile Leu Arg Met Phe Leu Val Phe Trp 50 55 60

Leu Leu Gly Ile Tyr Phe Cys His Leu Leu Val Ile Thr Val Leu Thr 65 70 75 80

Lys Trp Ile Leu Ala Pro Pro Tyr Leu Met Ala Gln Thr Thr Pro $85 \ \ 90 \ \ 95$

Gln Ser Leu Tyr 100

<210> 195

<211> 40 <212> PRT

<213> Homo sapiens

<400> 195

Pro Arg Val Arg Ser Ala Ala Arg Leu Pro Arg Thr Leu Arg Pro Ser 1 $$ 10 $$ 15

Arg Thr Ser Ala Pro Ala Gly Pro Cys Val Pro Arg Leu Ala Pro Leu 20 25 30

Thr Pro Ser Arg Pro Gly Arg Ala 35 40

<210> 196

<211> 251

<212> PRT

<213> Homo sapiens

<400> 196

Pro Arg Val Arg Ser Ala Ala Arg Leu Pro Arg Thr Leu Arg Pro Ser l \$10\$

Arg Thr Ser Ala Pro Ala Gly Pro Cys Val Pro Arg Leu Ala Pro Leu $20 \\ 25 \\ 30$

Thr Pro Ser Arg Pro Gly Arg Ala Met Ile Ser Leu Pro Gly Pro Leu 35 40 45

Val Thr Asn Leu Leu Arg Phe Leu Phe Leu Gly Leu Ser Ala Leu Asp 50 55 60

Val Ile Arg Gly Ser Leu Ser Leu Thr Asn Leu Ser Ser Ser Met Ala 65 70 75 80

Gly Val Tyr Val Cys Lys Ala His Asn Glu Val Gly Thr Ala Gln Cys 85 90 95

Asn Val Thr Leu Glu Val Ser Thr Gly Pro Gly Ala Ala Val Val Ala
100 105 110

Gly Ala Val Val Gly Thr Leu Val Gly Leu Gly Leu Leu Ala Gly Leu 115 120 125

Val Leu Leu Tyr His Arg Arg Gly Lys Ala Leu Glu Glu Pro Ala Asn 130 135 140

Asp Ile Lys Glu Asp Ala Ile Ala Pro Arg Thr Leu Pro Trp Pro Lys $145 \hspace{1cm} 150 \hspace{1cm} 155 \hspace{1cm} 160 \hspace{1cm}$

Ser Ser Asp Thr Ile Ser Lys Asn Gly Thr Leu Ser Ser Val Thr Ser . 165 170 175

Ala Arg Ala Leu Arg Pro Pro His Gly Pro Pro Arg Pro Gly Ala Leu 180 185 190

Thr Pro Thr Pro Ser Leu Ser Ser Gln Ala Leu Pro Ser Pro Arg Leu
195 200 205

Pro Thr Thr Asp Gly Ala His Pro Gln Pro Ile Ser Pro Ile Pro Gly 210 215 220

Gly Val Ser Ser Ser Gly Leu Ser Arg Met Gly Ala Val Pro Val Met 225 230235235

Val Pro Ala Gln Ser Gln Ala Gly Ser Leu Val 245 250

<210> 197

<211> 460 <212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (236) <223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE <222> (324)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 197

Ser Val Leu Trp Gly Gly Ser Lys Gly Pro Trp Ser Trp Pro Arg Pro 1 10 15

Arg His Arg Glu Arg Leu Asp Phe Leu Ser Leu Cys Ala Glu Trp Leu 20 25 30

Arg Trp Arg Pro Leu Ser Leu Thr Gln Gln Leu Lys His Thr Ile Ser 35 40 45

Gly Ser Asn Trp Leu Pro His Pro Leu Pro Cys Pro Leu Gly Ser Ala 50 55 60

Glu Asn Asn Gly Asn Ala Asn Ile Leu Ile Ala Ala Asn Gly Thr Lys $_{65}$ $$ $$ 70 $$ 75 $$ 80

Arg Lys Ala Ile Ala Ala Glu Asp Pro Ser Leu Asp Phe Arg Asn Asn 85 90 95

Pro Thr Lys Glu Asp Leu Gly Lys Leu Gln Pro Leu Val Ala Ser Tyr 100 105 110

Leu Cys Ser Asp Val Thr Ser Val Pro Ser Lys Glu Ser Leu Lys Leu 115 120 125

- Gln Gly Val Phe Ser Lys Gln Thr Val Leu Lys Ser His Pro Leu Leu 130 $\,$. $\,$ 135 $\,$ 140 $\,$
- Ser Gln Ser Tyr Glu Leu Arg Ala Glu Leu Leu Gly Arg Gln Pro Val 145 150 155 160
- Leu Glu Phe Ser Leu Glu Asn Leu Arg Thr Met Asn Thr Ser Gly Gln 165 170 175
- Thr Ala Leu Pro Gln Ala Pro Val Asn Gly Leu Ala Lys Lys Leu Thr
- Lys Ser Ser Thr His Ser Asp His Asp Asn Ser Thr Ser Leu Asn Gly 195 200 205
- Gly Lys Arg Ala Leu Thr Ser Ser Ala Leu His Gly Gly Glu Met Gly 210 215 220
- Gly Ser Glu Ser Gly Asp Leu Lys Gly Gly Met Xaa Asn Cys Thr Leu 225 230 235 240
- Pro His Arg Ser Leu Asp Val Glu His Thr Ile Leu Tyr Ser Asn Asn 245 250 255
- Ser Thr Ala Asn Lys Ser Ser Val Asn Ser Met Glu Gln Pro Ala Leu 260 265 . 270
- Gln Gly Ser Ser Arg Leu Ser Pro Gly Thr Asp Ser Ser Ser Asn Leu 275 280 285
- Gly Gly Val Lys Leu Glu Gly Lys Lys Ser Pro Leu Ser Ser Ile Leu $290 \hspace{1cm} 295 \hspace{1cm} 300 \hspace{1cm}$
- Phe Ser Ala Leu Asp Ser Asp Thr Arg Ile Thr Ala Leu Leu Arg Arg 305 310 315
- Gln Ala Asp Xaa Glu Ser Arg Ala Arg Arg Leu Gln Lys Arg Leu Gln 325 330 335
- Val Val Gln Ala Lys Gln Val Glu Arg His Ile Gln His Gln Leu Gly $340 \hspace{1.5cm} 345 \hspace{1.5cm} 350 \hspace{1.5cm}$
- Gly Phe Leu Glu Lys Thr Leu Ser Lys Leu Pro Asn Leu Glu Ser Leu \$355\$
- Arg Pro Arg Ser Gln Leu Met Leu Thr Arg Lys Ala Glu Ala Ala Leu 370 380
- Arg Lys Ala Ala Ser Glu Thr Thr Thr Ser Glu Gly Leu Ser Asn Phe 385 \$390\$
- Leu Lys Ser Asn Ser Ile Ser Glu Glu Leu Glu Arg Phe Thr Ala Ser $405 \hspace{1.5cm} 410 \hspace{1.5cm} 415$
- Gly Ile Ala Asn Leu Arg Cys Ser Glu Gln Ala Phe Asp Ser Asp Val \$420\$
- Thr Asp Ser Ser Ser Gly Gly Glu Ser Asp Ile Glu Glu Glu Leu

USSIBLE IN THE

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435
                           440
                                               445
 Thr Arg Ala Asp Pro Glu Gln Arg His Val Pro Leu
    450 455
 <210> 198
 <211> 43
 <212> PRT
 <213> Homo sapiens
 <400> 198
 Ser Val Leu Trp Gly Gly Ser Lys Gly Pro Trp Ser Trp Pro Arg Pro
 Arg His Arg Glu Arg Leu Asp Phe Leu Ser Leu Cys Ala Glu Trp Leu
                                25
 Arg Trp Arg Pro Leu Ser Leu Thr Gln Gln Leu
        35
<210> 199
<211> 45
<212> PRT
<213> Homo sapiens
<400> 199
Lys His Thr Ile Ser Gly Ser Asn Trp Leu Pro His Pro Leu Pro Cys
                        1.0
Pro Leu Gly Ser Ala Glu Asn Asn Gly Asn Ala Asn Ile Leu Ile Ala
Ala Asn Gly Thr Lys Arg Lys Ala Ile Ala Ala Glu Asp
<210> 200
<211> 45
<212> PRT
<213> Homo sapiens
<400> 200
Pro Ser Leu Asp Phe Arg Asn Asn Pro Thr Lys Glu Asp Leu Gly Lys
                                   10
Leu Gln Pro Leu Val Ala Ser Tyr Leu Cys Ser Asp Val Thr Ser Val
Pro Ser Lys Glu Ser Leu Lys Leu Gln Gly Val Phe Ser
```

<210> 201 <211> 46 <212> PRT <213> Homo sapiens

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<400> 201
 Lys Gln Thr Val Leu Lys Ser His Pro Leu Leu Ser Gln Ser Tyr Glu
 Leu Arg Ala Glu Leu Leu Gly Arg Gln Pro Val Leu Glu Phe Ser Leu
                                 25
 Glu Asn Leu Arg Thr Met Asn Thr Ser Gly Gln Thr Ala Leu
 <210> 202
 <211> 44
 <212> PRT
 <213> Homo sapiens
 <400> 202
 Pro Gln Ala Pro Val Asn Gly Leu Ala Lys Lys Leu Thr Lys Ser Ser
                             1.0
 Thr His Ser Asp His Asp Asn Ser Thr Ser Leu Asn Gly Gly Lys Arg
             20
 Ala Leu Thr Ser Ser Ala Leu His Gly Gly Glu Met
<210> 203
<211> 45
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (13)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 203
Gly Gly Ser Glu Ser Gly Asp Leu Lys Gly Gly Met Xaa Asn Cys Thr
Leu Pro His Arg Ser Leu Asp Val Glu His Thr Ile Leu Tyr Ser Asn
             20
                                 25
Asn Ser Thr Ala Asn Lys Ser Ser Val Asn Ser Met Glu
<210> .204
<211> 47
<212> PRT
<213> Homo sapiens
<400> 204
Gln Pro Ala Leu Gln Gly Ser Ser Arg Leu Ser Pro Gly Thr Asp Ser
Ser Ser Asn Leu Gly Gly Val Lys Leu Glu Gly Lys Lys Ser Pro Leu
```

25

Val Pro Leu 50

```
Ser Ser Ile Leu Phe Ser Ala Leu Asp Ser Asp Thr Arg Ile Thr
         35
                             40
<210> 205
<211> 47
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (9)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 205
Ala Leu Leu Arg Arg Gln Ala Asp Xaa Glu Ser Arg Ala Arg Arg Leu
Gln Lys Arg Leu Gln Val Val Gln Ala Lys Gln Val Glu Arg His Ile
Gln His Gln Leu Gly Gly Phe Leu Glu Lys Thr Leu Ser Lys Leu
         35
                             4.0
<210> 206
<211> 47
<212> PRT
<213> Homo sapiens
<400> 206
Pro Asn Leu Glu Ser Leu Arg Pro Arg Ser Gln Leu Met Leu Thr Arg
                                    10
Lys Ala Glu Ala Ala Leu Arg Lys Ala Ala Ser Glu Thr Thr Thr Ser
             20
                                 25
                                                     3.0
Glu Gly Leu Ser Asn Phe Leu Lys Ser Asn Ser Ile Ser Glu Glu
         35
                            40
<210> 207
<211> 51
<212> PRT
<213> Homo sapiens
Leu Glu Arg Phe Thr Ala Ser Gly Ile Ala Asn Leu Arg Cys Ser Glu
1
Gln Ala Phe Asp Ser Asp Val Thr Asp Ser Ser Ser Gly Gly Glu Ser
             20
                                                     3.0
Asp Ile Glu Glu Glu Leu Thr Arg Ala Asp Pro Glu Gln Arg His
```

```
<210> 208
 <211> 86
 <212> PRT
 <213> Homo sapiens
<400> 208
Asn Asn Cys Gly Thr Val Ser Ser Arg Val Phe Ser Phe Trp Arg Gln
                                      1.0
Phe Arg Gln Gln Pro Gln Val Val Leu Leu Leu Lys Ile Tyr Met Phe
                                  25
Leu Lys Val Leu Val Phe Leu Ile Phe Phe Ser Pro Phe Ser Ser Ser
                             40
                                             . 45
Leu Phe Ser Gly Glu Ala Val Arg Gly Arg Gly Ala Gly Leu Gly Leu
                         55
Gly Ile Gly Arg Gly Trp Thr Ser Cys Leu Ser Val Leu Asn Gly Cys
                                        7.5
Asp Gly Ala Arg Ser His
                 85
```

<210> 209 <211> 16 <212> PRT <213> Homo sapiens

<400> 209

Ala Lys Val Val Ser Trp Pro Ser Gln Glu Thr Cys Gly Ile Arg Thr $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

<210> 210 <211> 72 <212> PRT <213> Homo sapiens <400> 210

Ala Lys Val Val Ser Trp Pro Ser Gln Glu Thr Cys Gly Ile Arg Thr 1 5 10 . 15

Met Lys Ala Met Leu Gln Cys Phe Arg Phe Tyr Phe Met Arg Leu Phe $20 \\ 25 \\ 30$

Val Phe Leu Leu Thr Ser Gly Lys Met Ile Asp Ser Asp Ser Thr Met $35 \hspace{1.5cm} 40 \hspace{1.5cm} 45 \hspace{1.5cm}$

Gln Gly Cys Trp Tyr Gln Pro Glu Pro Tyr Arg Trp Gln Ser Leu Glu 50 55 60

Lys Trp Ser Gln Lys Met Glu Leu

65 7.0 <210> 211 <211> 26 <212> PRT <213> Homo sapiens <400> 211 Leu Pro Ser Gly Thr Phe Leu Lys Arg Ser Phe Arg Ser Leu Pro Glu 5 Leu Lys Asp Ala Val Leu Asp Gln Tyr Ser 20 <210> 212 <211> 298 <212> PRT <213> Homo sapiens <400> 212 Leu Pro Ser Gly Thr Phe Leu Lys Arg Ser Phe Arg Ser Leu Pro Glu 5 Leu Lys Asp Ala Val Leu Asp Gln Tyr Ser Met Trp Gly Asn Lys Phe Gly Val Leu Leu Phe Leu Tyr Ser Val Leu Leu Thr Lys Gly Ile Glu 40 Asn Ile Lys Asn Glu Ile Glu Asp Ala Ser Glu Pro Leu Ile Asp Pro Val Tyr Gly His Gly Ser Gln Ser Leu Ile Asn Leu Leu Leu Thr Gly His Ala Val Ser Asn Val Trp Asp Gly Asp Arg Glu Cys Ser Gly Met 90 85 Lys Leu Leu Gly Ile His Glu Gln Ala Ala Val Gly Phe Leu Thr Leu Met Glu Ala Leu Arg Tyr Cys Lys Val Gly Ser Tyr Leu Lys Ser Pro 120 Lys Phe Pro Ile Trp Ile Val Gly Ser Glu Thr His Leu Thr Val Phe 130 135 Phe Ala Lys Asp Met Ala Leu Val Ala Pro Glu Ala Pro Ser Glu Gln 150 Ala Arg Arg Val Phe Gln Thr Tyr Asp Pro Glu Asp Asn Gly Phe Ile 165 170

Pro Asp Ser Leu Leu Glu Asp Val Met Lys Ala Leu Asp Leu Val Ser Asp Pro Glu Tyr Ile Asn Leu Met Lys Asn Lys Leu Asp Pro Glu Gly

118 195 200 205

Leu Gly Ile Ile Leu Leu Gly Pro Phe Leu Gln Glu Phe Phe Pro Asp 210 215 220

Gln Gly Ser Ser Gly Pro Glu Ser Phe Thr Val Tyr His Tyr Asn Gly 225 230 235 240

Leu Lys Gln Ser Asn Tyr Asn Glu Lys Val Met Tyr Val Glu Gly Thr 245 250 255

Ala Val Val Met Gly Phe Glu Asp Pro Met Leu Gln Thr Asp Asp Thr

Pro Ile Lys Arg Cys Leu Gln Thr Lys Trp Pro Tyr Ile Glu Leu Leu 275 280 285

Trp Thr Thr Asp Arg Ser Pro Ser Leu Asn 290 295

<210> 213

<211> 21

<212> PRT <213> Homo sapiens

<400> 213

Gly Thr Arg Arg Ala Glu Val Gly Ala Ala Thr Ala Leu Pro Val Arg 1 5 10 15

Trp Ala Ser Gly Glu

20

<210> 214

<211> 301

<212> PRT

<213> Homo sapiens

<400> 214

Gly Thr Arg Arg Ala Glu Val Gly Ala Ala Thr Ala Leu Pro Val Arg

Trp Ala Ser Gly Glu Met Ala Pro Ser Gly Ser Leu Ala Val Pro Leu $20 \\ 25 \\ 30$

Ala Val Leu Val Leu Leu Trp Gly Ala Pro Trp Thr His Gly Arg

Arg Ser Asn Val Arg Val Ile Thr Asp Glu Asn Trp Arg Glu Leu Leu
50 55 60

Glu Gly Asp Trp Met Ile Glu Phe Tyr Ala Pro Trp Cys Pro Ala Cys 65 70 75 80

Gln Asn Leu Gln Pro Glu Trp Glu Ser Phe Ala Glu Trp Gly Glu Asp 85 90 95

Leu Glu Val Asn Ile Ala Lys Val Asp Val Thr Glu Gln Pro Gly Leu

119 100 105 110

Ser Gly Arg Phe Ile Ile Thr Ala Leu Pro Thr Ile Tyr His Cys Lys 115 120 125

Asp Gly Glu Phe Arg Arg Tyr Gln Gly Pro Arg Thr Lys Lys Asp Phe 130 135

Ile Asn Phe Ile Ser Asp Lys Glu Trp Lys Ser Ile Glu Pro Val Ser 145 \$150\$

Ser Trp Phe Gly Pro Gly Ser Val Leu Met Ser Ser Met Ser Ala Leu 165 170 175

Phe Gln Leu Ser Met Trp Ile Arg Thr Cys His Asn Tyr Phe Ile Glu 180 185 190

Asp Leu Gly Leu Pro Val Trp Gly Ser Tyr Thr Val Phe Ala Leu Ala 195 \$200\$

Thr Leu Phe Ser Gly Leu Leu Leu Gly Leu Cys Met Ile Phe Val Ala 210 215 220

Asp Cys Leu Cys Pro Ser Lys Arg Arg Arg Pro Gln Pro Tyr Pro Tyr 225 230235235

Pro Ser Lys Lys Leu Leu Ser Glu Ser Ala Gln Pro Leu Lys Lys Val $245 \hspace{1.5cm} 250 \hspace{1.5cm} 250 \hspace{1.5cm} 255$

Glu Glu Glu Glu Ala Asp Glu Glu Asp Val Ser Glu Glu Glu Ala 260 265 270

Glu Ser Lys Glu Gly Thr Asn Lys Asp Phe Pro Gln Asn Ala Ile Arg 275 280 285

Gln Arg Ser Leu Gly Pro Ser Leu Ala Thr Asp Lys Ser 290 295 300

<210> 215

<211> 48

<212> PRT

<213> Homo sapiens

<400> 215

Val Thr Gly Thr Gly Glu Glu Leu Asn Ser Asn Ser Ser Leu Trp Glu

1 10 15

Asn Ala Val Leu Ala Pro Pro Gly Val Ala Leu Ala Gly Cys Trp Ser $20 \\ 25 \\ 30$

Pro Arg Ser Ala Pro Ser Gly Leu Trp Gly Gln Gly Trp Val Ser Leu $35 \hspace{1cm} 40 \hspace{1cm} 45$

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120
 <211> 28
  <212> PRT
  <213> Homo, sapiens
 <400> 216
 Ser Asn Ser Ser Leu Trp Glu Asn Ala Val Leu Ala Pro Pro Gly Val
                                                          15
 Ala Leu Ala Gly Cys Trp Ser Pro Arg Ser Ala Pro
              2.0
 <210> 217
 <211> 134
 <212> PRT
 <213> Homo sapiens
 <220>
 <221> SITE
 <222> (56)
 <223> Xaa equals any of the naturally occurring L-amino acids
 <400> 217
 Ile Pro Phe Gln Pro Met Ser Gly Arg Phe Lys Asp Arg Val Ser Trp
 Asp Gly Asn Pro Glu Arg Tyr Asp Ala Ser Ile Leu Leu Trp Lys Leu
 Gln Phe Asp Asp Asn Gly Thr Tyr Thr Cys Gln Val Lys Asn Pro Pro
          35
 Asp Val Asp Gly Val Ile Gly Xaa Ile Arg Leu Ser Val Val His Thr
 Val Arg Phe Ser Glu Ile His Phe Leu Ala Leu Ala Ile Gly Ser Ala
 65
                      70
                                          75
 Cys Ala Leu Met Ile Ile Ile Val Ile Val Val Val Leu Phe Gln His
 Tyr Arg Lys Lys Arg Trp Ala Glu Arg Ala His Lys Val Val Glu Ile
                                105
 Lys Ser Lys Glu Glu Glu Arg Leu Asn Gln Glu Lys Lys Val Ser Val
        115
                             120
 Tyr Leu Glu Asp Thr Asp
    130
<210> 218
<211> 29
<212> PRT
<213> Homo sapiens
<400> 218
Arg Val Ser Trp Asp Gly Asn Pro Glu Arg Tyr Asp Ala Ser Ile Leu
```

10

50

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Leu Tro Lys Leu Gln Phe Asp Asp Asn Gly Thr Tyr Thr
<210> 219
<211> 24
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (9)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 219
Pro Asp Val Asp Gly Val Ile Gly Xaa Ile Arg Leu Ser Val Val His
Thr Val Arg Phe Ser Glu Ile His
            20
<210> 220
<211> 28
<212> PRT
<213> Homo sapiens
<400> 220
Met Ile Ile Val Ile Val Val Val Leu Phe Gln His Tyr Arg Lys
                                     10
Lys Arg Trp Ala Glu Arg Ala His Lys Val Val Glu
            2.0
<210> 221
<211> 91
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (84)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 221
Met Tyr Gly Lys Ser Ser Thr Arg Ala Val Leu Leu Leu Leu Gly Ile
                                    10 -
Gln Leu Thr Ala Leu Trp Pro Ile Ala Ala Val Glu Ile Tyr Thr Ser
             20
Arg Val Leu Glu Ala Val Asn Glv Thr Asp Ala Arg Leu Lys Cys Thr
Phe Ser Ser Phe Ala Pro Val Gly Asp Ala Leu Thr Val Thr Trp Asn
```

Phe Arg Pro Leu Asp Gly Gly Pro Glu Gln Phe Val Phe Tyr Tyr His 65 70 75 80

Ile Asp Pro Xaa Pro Thr His Glu Trp Ala Val 85 90

<210> 222

<211> 250

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (118)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (176)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 222

Cys Trp Ser Pro Arg Ser Ala Pro Ser Gly Leu Trp Gly Gln Gly Trp $20 \hspace{1cm} 25 \hspace{1cm} 30 \hspace{1cm}$

Val Ser Leu Met Tyr Gly Lys Ser Ser Thr Arg Ala Val Leu Leu Leu 35 40 45

Leu Gly Ile Gln Leu Thr Ala Leu Trp Pro Ile Ala Ala Val Glu Ile 50 55 60

Tyr Thr Ser Arg Val Leu Glu Ala Val Asn Gly Thr Asp Ala Arg Leu 65 70 75 80

Lys Cys Thr Phe Ser Ser Phe Ala Pro Val Gly Asp Ala Leu Thr Val

Thr Trp Asn Phe Arg Pro Leu Asp Gly Gly Pro Glu Gln Phe Val Phe 100 105 110

Tyr Tyr His Ile Asp Xaa Phe Gln Pro Met Ser Gly Arg Phe Lys Asp \$115\$ \$120\$ \$125\$

Arg Val Ser Trp Asp G1y Asn Pro Glu Arg Tyr Asp Ala Ser Ile Leu 130 135 140

Leu Trp Lys Leu Gln Phe Asp Asp Asn Gly Thr Tyr Thr Cys Gln Val 145 $$ $$ 150 $$ 155 $$ 160

Lys Asn Pro Pro Asp Val Asp Gly Val Ile Gly Asp Ile Arg Leu Xaa 165 170 175

Val Val His Thr Val Arg Phe Ser Glu Ile His Phe Leu Ala Leu Ala 180 185 190

```
Ile Gly Ser Ala Cys Ala Leu Met Ile Ile Ile Val Ile Val Val Val
                                                205
          195
                            200
  Leu Phe Gli His Tyr Arg Lys Lys Arg Trp Ala Glu Arg Ala His Lys
                         215
  Val Val Glu Ile Lys Ser Lys Glu Glu Glu Arg Leu Asn Gln Glu Lys
                     230
                                       235
  Lys Val Ser Val Tyr Leu Glu Asp Thr Asp
                 245
 <210> 223
  <211> 7
 <212> PRT
 <213> Homo sapiens
 <400> 223
Pro Ala Arg Gly Ala Pro Arg
<210> 224
<211> 6
 <212> PRT
<213> Homo sapiens
<400> 224
 Ala Arg Val Tyr Phe Lys
<210> 225
 <211> 7
 <212> PRT
 <213> Homo sapiens
 <400> 225
 Thr Lys Leu Phe His Asp Lys
  1 5
 <210> 226
 <211> 161
 <212> PRT
 <213> Homo sapiens
<400> 226
  Pro His Ile His Pro Cys Trp Lys Glu Gly Asp Thr Val Gly Phe Leu
  Leu Asp Leu Asn Glu Lys Gln Met Ile Phe Phe Leu Asn Gly Asn Gln
             20
                                 25
 Leu Pro Pro Glu Lys Gln Val Phe Ser Ser Thr Val Ser Gly Phe Phe
```

Ala Ala Ala Ser Phe Met Ser Tyr Gln Gln Cys Glu Phe Asn Phe Gly

Ala Lys Pro Phe Lys Tyr Pro Pro Ser Met Lys Phe Ser Thr Phe Asn 70 75 Asp Tyr Ala Phe Leu Thr Ala Glu Glu Lys Ile Ile Leu Pro Arg His Arg Arg Leu Ala Leu Leu Lys Gln Val Ser Ile Arg Glu Asn Cys Cys 100 105 Ser Leu Cys Cys Asp Glu Val Ala Asp Thr Gln Leu Lys Pro Cys Gly 120 His Ser Asp Leu Cys Met Asp Cys Ala Leu Gln Leu Glu Thr Cys Pro 135 130 Leu Cys Arg Lys Glu Ile Val Ser Arg Ile Arg Gln Ile Ser His Ile 150 155 Ser <210> 227 <211> 31 <212> PRT <213> Homo sapiens <400> 227 Asn Glu Lys Gln Met Ile Phe Phe Leu Asn Gly Asn Gln Leu Pro Pro Glu Lys Gln Val Phe Ser Ser Thr Val Ser Gly Phe Phe Ala Ala 20 <210> 228 <211> 27 <212> PRT <213> Homo sapiens <400> 228 Ser Tyr Gln Gln Cys Glu Phe Asn Phe Gly Ala Lys Pro Phe Lys Tyr Pro Pro Ser Met Lys Phe Ser Thr Phe Asn Asp 20 25 <210> 229 <211> 29 <212> PRT <213> Homo sapiens <400> 229 Glu Glu Lys Ile Ile Leu Pro Arg His Arg Arg Leu Ala Leu Leu Lys 10

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CSG13155.CSE151
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Gln Val Ser Ile Arg Glu Asn Cys Cys Ser Leu Cys Cys
             20
                      25
 <210> 230
  <211> 30
  <212> PRT
 <213> Homo sapiens
 <400> 230
 Thr Gln Leu Lys Pro Cys Gly His Ser Asp Leu Cys Met Asp Cys Ala
                                    10
 Leu Gln Leu Glu Thr Cys Pro Leu Cys Arg Lys Glu Ile Val
 <210> 231
 <211> 8
 <212> PRT
 <213> Homo sapiens
 <400> 231
 Ala Leu Glu Lys Phe Ala Gln Thr
 1
<210> 232
<211> 6
<212> PRT
<213> Homo sapiens
 <400> 232
 Gly Phe Cys Ala Gln Trp
 <210> 233
 <211> 8
 <212> PRT
 <213> Homo sapiens
 <400> 233
 Asp Val Ser Glu Tyr Leu Lys Ile
 1 5
<210> 234
<211> 7
<212> PRT
 <213> Homo sapiens
 <400> 234
 Gly Leu Glu Ala Arg Cys Asp
 <210> 235
 <211> 8
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<212> PRT
  <213> Homo sapiens
 <400> 235
  Phe Glu Ser Val Arg Cys Thr Phe
 <210> 236
 <211> 6
 <212> PRT
 <213> Homo sapiens
 <400> 236
 Gly Val Trp Tyr Tyr Glu
 <210> 237
 <211> 8
 <212> PRT
 <213> Homo sapiens
 <400> 237
 Thr Ser Gly Val Met Gln Ile Gly
                  5
<210> 238
<211> 12
<212> PRT
 <213> Homo sapiens
 <400> 238
 Phe Leu Asn His Glu Gly Tyr Gly Ile Gly Asp Asp
 <210> 239
 <211> 7
 <212> PRT
 <213> Homo sapiens
 <400> 239
 Ala Tyr Asp Gly Cys Arg Gln
<210> 240
 <211> 15
 <212> PRT
 <213> Homo sapiens
 <400> 240
 His Ala Ser Ala Asp Gly Gly Arg Thr Arg Gly Trp Thr Pro Thr
                                     10
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<211> 337

<212> PRT

<213> Homo sapiens

<400> 241

His Ala Ser Ala Asp Gly Gly Arg Thr Arg Gly Trp Thr Pro Thr Met

1 5 10 15

Pro Pro Arg Gly Pro Ala Ser Glu Leu Leu Leu Leu Arg Leu Leu Leu 20 25 30

Leu Gly Ala Ala Thr Ala Ala Pro Leu Ala Pro Arg Pro Ser Lys Glu \$35\$ \$40\$ \$45\$

Glu Leu Thr Arg Cys Leu Ala Glu Val Val Thr Glu Val Leu Thr Val
50 55 60

Gly Gln Val Gln Arg Gly Pro Cys Thr Ala Leu Leu His Lys Glu Leu 65 70 75 80

Leu Leu Gly Asp Phe Lys Lys Gin Glu Ala Gly Lys Met Arg Ser Ser 100 105 110

Glu Glu Val Arg Asp Glu Glu Glu Glu Glu Val Ala Glu Arg Thr His 115 \$120\$

Lys Ser Glu Val Glu Glu Glu Ala Ile Arg Met Glu Gly His Arg Glu 130 \$135\$. \$140

Leu His Gl
n Glu Glu Asp Glu Glu Glu Glu Lys Glu Glu Arg Lys Arg 145 150 155 160

Gly Pro Met Glu Thr Phe Glu Asp Leu Trp Gln Arg His Leu Glu Asn $165 \hspace{1cm} 170 \hspace{1cm} 175$

Gly Gly Asp Leu Gln Lys Arg Val Ala Glu Lys Ala Ser Asp Lys Glu \$180\$ \$190\$

Thr Ala Gln Phe Gln Ala Glu Glu Lys Gly Val Arg Val Leu Gly Gly
195 200 205

Asp Arg Ser Leu Trp Gln Gly Ala Glu Arg Gly Gly Glu Arg Arg 210 \$215\$

Glu Asp Leu Pro His His His His His His Gln Pro Glu Ala Glu 225 230 235 240

Pro Arg Gln Glu Lys Glu Glu Ala Ser Glu Arg Glu Val Ser Arg Gly 245 250 255

Met Lys Glu Glu His Gln His Ser Leu Glu Ala Gly Leu Met Met Val 260 265 270

Ser Gly Val Thr Thr His Ser His Arg Cys Trp Pro Cys Thr Thr Arg 275 280 285

128 Ser Ile Thr Ser Gly Ser Gln Trp Pro Arg Leu Thr Pro Arg Leu Ala 295 Asn Asn Phé Arg Ala Arg Pro Leu Pro Tyr Thr Ser Thr Leu Leu Tyr 310 315 Gly Leu Gln Gln Pro Arg Trp His His Cys Thr Glu Ala Ser His His 330 His <210> 242 <211> 23 <212> PRT <213> Homo sapiens <400> 242 Ala Phe Asp Glu Gly Asn Lys Met Glu Leu Arg Lys Asn Thr Ile Leu Ile Ile Tyr Tyr Ile Ser Arg 2.0 <210> 243 <211> 78 <212> PRT <213> Homo sapiens <400> 243 Ala Phe Asp Glu Gly Asn Lys Met Glu Leu Arg Lys Asn Thr Ile Leu Ile Ile Tyr Tyr Ile Ser Arg Met Leu Phe Leu Arg Ser Ile Leu Trp 20 Leu Ser Ser Leu Phe Phe Cys His Phe Val Pro Thr Ser His Ser Leu Gly Phe Gln Asn Ile Thr Ser Val Tyr Asn Ala Thr Leu Gln Gln Thr 55 Val Phe Gln His Asp Ser Lys Thr Val Thr Thr Cys Phe Thr 70 <210> 244 <211> 25 <212> PRT <213> Homo sapiens <400> 244 Gly Thr Arg Trp Lys Leu Phe Gln Gln Arg Phe Leu Tyr Arg Gly Asn

10

Arg Glu Phe Gln Asn Lys Lys Leu Ser

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<210> 245
<211> 100
<212> PRT
<213> Homo sapiens
<400> 245
Gly Thr Arg Trp Lys Leu Phe Gln Gln Arg Phe Leu Tyr Arg Gly Asn
Arg Glu Phe Gln Asn Lys Lys Leu Ser Met Phe Cys Val Phe Ile Leu
              2.0
                                  25
Thr Phe Phe Met Val Phe Asn Leu Trp Leu Ala Ala Thr Val Tyr His
Val Tyr Gly Thr Cys Lys Lys Val Leu Asp Ile Gln Ile Leu Arg Asp
Glu Ile Thr Phe Thr Tyr Lys Asn His Phe Tyr Cys Gly Leu Thr Ala
                      70
Leu Ser Ser Arg Ile Leu Asn Asp Ile Thr Asn Ile Leu His Val Ile
                  85
                                      90
Cys Ser Phe Glu
            100
<210> 246
<211> 10
<212> PRT
<213> Homo sapiens
<400> 246
Gly Thr Ser Ala Ile Pro Val Phe Ala Ala
<210> 247
<211> 122
<212> PRT
<213> Homo sapiens
<400> 247
Leu Asp Phe Ile Leu Ser Ser Trp Leu Ser Thr Arg Gln Pro Met Lys
Asp Ile Lys Gly Ser Trp Thr Gly Lys Asn Arg Val Gln Asn Pro Tyr
Ser His Gly Asn Ile Val Lys Asn Cys Cys Glu Val Leu Cys Gly Pro
         35
```

Leu Pro Pro Ser Val Leu Asp Arg Arg Gly Ile Leu Pro Leu Glu Glu

Ser Gly Ser Arg Pro Pro Ser Thr Gln Glu Thr Ser Ser Ser Leu Leu

55

65 7.0 75 Pro Gln Ser Pro Ala Pro Thr Glu His Leu Asn Ser Asn Glu Met Pro Glu Asp Ser Ser Thr Pro Glu Glu Met Pro Pro Pro Glu Pro Pro Glu 100 105 Pro Pro Gln Glu Ala Ala Glu Ala Glu Lys 120 <210> 248 <211> 27 <212> PRT <213> Homo sapiens <400> 248 Lys Gly Ser Trp Thr Gly Lys Asn Arg Val Gln Asn Pro Tyr Ser His Gly Asn Ile Val Lys Asn Cys Cys Glu Val Leu 20 <210> 249 <211> 25 <212> PRT <213> Homo sapiens <400> 249 Asp Arg Arg Gly Ile Leu Pro Leu Glu Glu Ser Gly Ser Arg Pro Pro Ser Thr Gln Glu Thr Ser Ser Ser Leu 20 <210> 250 <211> 17 <212> PRT <213> Homo sapiens <400> 250 Pro Glu Asp Ser Ser Thr Pro Glu Glu Met Pro Pro Pro Glu Pro Pro 10 Glu <210> 251 <211> 389 <212> PRT <213> Homo sapiens

last mari

Phe Gln Ser Trp Ala Gln Pro Leu Phe Leu Leu Ser Cys Asn Arg Lys 5 10

- Thr His Phe Gly Ala Gly Ile Pro Ile Met Ser Val Met Val Val Arg 20 25 30
- Lys Lys Val Thr Arg Lys Trp Glu Lys Leu Pro Gly Arg Asn Thr Phe 35 40 45
- Cys Cys Asp Gly Arg Val Met Met Ala Arg Gln Lys Gly Ile Phe Tyr 50 60
- Leu Thr Leu Phe Leu Ile Leu Gly Thr Cys Thr Leu Phe Phe Ala Phe 65 70 75 80
- Glu Cys Arg Tyr Leu Ala Val Gln Leu Ser Pro Ala Ile Pro Val Phe 85 90 95
- Ala Ala Met Leu Phe Leu Phe Ser Met Ala Thr Leu Leu Arg Thr Ser 100 105 110
- Phe Ser Asp Pro Gly Val Ile Pro Arg Ala Leu Pro Asp Glu Ala Ala 115 120 125
- Phe Ile Glu Met Glu Ile Glu Ala Thr Asn Gly Ala Val Pro Gln Gly 130 135 140
- Gln Arg Pro Pro Pro Arg Ile Lys Asn Phe Gln Ile Asn Asn Gln Ile 145 150 155 160
- Val Lys Leu Lys Tyr Cys Tyr Thr Cys Lys Ile Phe Arg Pro Pro Arg 165 170 175
- Ala Ser His Cys Ser Ile Cys Asp Asn Cys Val Glu Arg Phe Asp His
- His Cys Pro Trp Val Gly Asn Cys Val Gly Lys Arg Asn Tyr Arg Tyr 195 200 205
- Phe Tyr Leu Phe Ile Leu Ser Leu Ser Leu Leu Thr Ile Tyr Val Phe 210 215 220
- Ala Phe Asn Ile Val Tyr Val Ala Leu Lys Ser Leu Lys Ile Gly Phe 225 230 235
- Leu Glu Thr Leu Lys Glu Thr Pro Gly Thr Val Leu Glu Val Leu Ile 245 250 255
- Cys Phe Phe Thr Leu Trp Ser Val Val Gly Leu Thr Gly Phe His Thr 260 265 270
- Phe Leu Val Ala Leu Asn Gln Thr Thr Asn Glu Asp Ile Lys Gly Ser 275 280 285
- Trp Thr Gly Lys Asn Arg Val Gln Asn Pro Tyr Ser His Gly Asn Ile $290 \\ \hspace{1.5cm} 295 \\ \hspace{1.5cm} 300 \\ \hspace{1.5cm}$
- Val Lys Asn Cys Cys Glu Val Leu Cys Gly Pro Leu Pro Pro Ser Val 305 310 315
- Leu Asp Arg Arg Gly Ile Leu Pro Leu Glu Glu Ser Gly Ser Arg Pro

132 325 330 335

Pro Ser Thr Glu Glu Thr Ser Ser Ser Leu Leu Pro Glu Ser Pro Ala \$340\$

Pro Thr Glu His Leu Asn Ser Asn Glu Met Pro Glu Asp Ser Ser Thr 355 360 365

Pro Glu Glu Met Pro Pro Pro Glu Pro Pro Glu Pro Pro Gln Glu Ala 370 375 380

Ala Glu Ala Glu Lys

<210> 252

<211> 184

<212> PRT <213> Homo sapiens

<400> 252

Met Leu Phe Leu Phe Ser Met Ala Thr Leu Leu Arg Thr Ser Phe Ser $1 \hspace{1cm} 1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15 \hspace{1cm} 15 \hspace{1cm}$

Asp Pro Gly Val Ile Pro Arg Ala Leu Pro Asp Glu Ala Ala Phe Ile $20 \hspace{1cm} 25 \hspace{1cm} 30$

Glu Met Glu Ile Glu Ala Thr Asn Gly Ala Val Pro Gln Gly Gln Arg 35 40 45

Pro Pro Pro Arg Ile Lys Asn Phe Gln Ile Asn Asn Gln Ile Val Lys $50 \ \ 55 \ \ 60$

Leu Lys Tyr Cys Tyr Thr Cys Lys Ile Phe Arg Pro Pro Arg Ala Ser 65 70 75 80

His Cys Ser Ile Cys Asp Asn Cys Val Glu Arg Phe Asp His His Cys 85 90 95

Pro Trp Val Gly Asn Cys Val Gly Lys Arg Asn Tyr Arg Tyr Phe Tyr 100 105 110

Leu Phe Ile Leu Ser Leu Ser Leu Leu Thr Ile Tyr Val Phe Ala Phe 115 \$120\$

Asn Ile Val Tyr Val Ala Leu Lys Ser Leu Lys Ile Gly Phe Leu Glu 130 $$135\$

Thr Leu Lys Gly Asn Ser Trp Asn Cys Ser Arg Ser Pro His Leu Leu 145 150 150

Leu Tyr Thr Leu Val Arg Arg Gly Thr Asp Trp Ile Ser Tyr Phe Pro 165 170 175

Arg Gly Ser Gln Pro Asp Asn Gln 180

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<211> 8
 <212> PRT
 <213> Homo sapiens
 <400> 253
 Tyr Leu Leu Gln Glu Asn Asn Leu
                   5
 <210> 254
 <211> 12
 <212> PRT
 <213> Homo sapiens
 <400> 254
 Val Arg Leu Leu Gly Leu Cys Ile Ala Gln Gly His
<210> 255
<211> 188
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (185)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 255
 Met Arg Val Gly Arg Arg Pro Lys Ala Gln Arg Val Gln Gly Gln Asn
 Gly Asn His Ser Ser Asp Ser Glu Gly Ser Phe Ser Leu Leu Cys Leu
 Gln Leu Phe Ser Lys Phe Ala Val Val Ser Ile Leu Leu Leu Leu Leu
 Leu Leu Phe Asn Thr Ser Lys Lys Leu Met Thr Phe Ser Leu Asp
 Ser Leu Leu Ser Pro Ile Ser Ile Pro Thr Ala Leu Leu Phe Gly Ser
 65
 Pro Pro Pro Pro Pro Ser His Arg Gly Tyr Gly Val Gly Ser Ala Pro
Leu Lys Glu Lys Gln Met Lys Glu Leu Val Pro Pro Arg Arg Glu Cys
             100
 Thr Val Gln Gly Gln Pro Trp Gln Gly Pro Ser Leu Pro Gly Pro Ala
                            120
 Glu Leu Gly His Arg Pro Gly Thr Arg Leu Gly Val Glu Cys Asp Gly
                        135
 Glu Trp Cys Pro Arg Ser Cys Phe Trp Glu Leu Leu Gly Pro Pro Tyr
                    150
```

```
Leu Lys Cys Ser Gln Pro Ser Pro Ile Pro Pro Leu Asp Gly Thr Gln
          165
                                  170
Thr Ser Ala Glu Arg Gly Arg Gly Xaa Ala Leu Lys
          180
                              185
<210> 256
<211> 35
<212> PRT
<213> Homo sapiens
<400> 256
Pro Lys Ala Gln Arg Val Gln Gly Gln Asn Gly Asn His Ser Ser Asp
                                   10
Ser Glu Gly Ser Phe Ser Leu Leu Cys Leu Gln Leu Phe Ser Lys Phe
                             25
Ala Val Val
        35
<210> 257
<211> 22
<212> PRT
<213> Homo sapiens
<400> 257
Leu Asp Ser Leu Leu Ser Pro Ile Ser Ile Pro Thr Ala Leu Leu Phe
Gly Ser Pro Pro Pro Pro
            20
<210> 258
<211> 24
<212> PRT
<213> Homo sapiens
<400> 258
Glu Leu Val Pro Pro Arg Arg Glu Cys Thr Val Gln Gly Gln Pro Trp
        5
Gln Gly Pro Ser Leu Pro Gly Pro
            20
<210> 259
<211> 25
<212> PRT
<213> Homo sapiens
<400> 259
Arg Leu Gly Val Glu Cys Asp Gly Glu Trp Cys Pro Arg Ser Cys Phe
                       10
            5
```

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Trp Glu Leu Leu Gly Pro Pro Tyr Leu
            20
<210> 260
<211> 9
<212> PRT
<213> Homo sapiens
<400> 260
 Trp His Ile Ser Glu Pro Asn Gly Gln
                5
<210> 261
<211> 36
<212> PRT
<213> Homo sapiens
<400> 261
Arg Pro Ser Arg Leu Arg Arg Leu Lys Ala Pro Phe Ser Ala Trp
 1
                                     10
Lys Thr Arg Leu Ala Gly Ala Lys Gly Gly Leu Ser Val Gly Asp Phe
             20
Arg Lys Val Leu
        3.5
<210> 262
<211> 53
<212> PRT
<213> Homo sapiens
<400> 262
Trp Pro Ser Gly Leu Gly Arg Thr Ser Ser Leu Arg Gly Ser Glu Ala
Gln Ser Trp Cys Ser Ser Ala Gly His Gly Pro Pro Pro Ala Leu Gly
                                25
Ser Pro Ala Ser Cys Gly Gly Cys Phe Ser Pro Thr Arg Ala Ser Ala
        35
                            40
Pro Ala Ala Gly Gly
    50
<210> 263
<211> 29
<212> PRT
<213> Homo sapiens
<400> 263
Ser Leu Arg Gly Ser Glu Ala Gln Ser Trp Cys Ser Ser Ala Gly His
                  5
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Gly Pro Pro Pro Ala Leu Gly Ser Pro Ala Ser Cys Gly

<210> 264 <211> 102 <212> PRT

<213> Homo sapiens

<400> 264

Lys Pro His Leu Gly Pro Arg Gly Ser Ile Glu Pro Ser Gln Ala Ser 1 1

Ser Arg Asn Pro Gly Leu Val Thr Glu Gln Ser Cys Leu Gln Gly Pro $20 \\ 25 \\ 30$

Ser Gly His Arg Ala Trp Ala Gly His His Leu Ser Glu Gly Gln Arg \$35\$

Val Leu Pro His His Val Val Ala Ala Phe Pro Pro Pro Gly Pro Gln $65 \ \ \, 70 \ \ \, 75 \ \ \, 80$

Leu Arg His Ala Glu His 100

<210> 265 <211> 30 <212> PRT

<213> Homo sapiens

<400> 265

Ser Gly His Arg Ala Trp Ala Gly His His Leu Ser Glu Gly 20 25 30

<210> 266 <211> 33 <212> PRT

<213> Homo sapiens

<400> 266

Thr Ala Leu His Gln Leu Trp Val Leu Pro His His Val Val Ala Ala 1 5 10 15

Phe Pro Pro Gly Pro Gln Leu Gln Gln Leu Val Gly Glu Leu Ser 20 25 30

Thr

<210> 267

<211> 241

<211> 241 <212> PRT

<213> Homo sapiens

<400> 267

Arg Pro Ser Arg Leu Arg Arg Arg Leu Lys Ala Pro Phe Ser Ala Trp

Lys Thr Arg Leu Ala Gly Ala Lys Gly Gly Leu Ser Val Gly Asp Phe 20 25 30

Arg Lys Val Leu Met Lys Thr Gly Leu Val Leu Val Val Leu Gly His $35 \hspace{1cm} 40 \hspace{1cm} 45 \hspace{1cm}$

Val Ser Phe Ile Thr Ala Ala Leu Phe His Gly Thr Val Leu Arg Tyr 50 55 60

Val Gly Thr Pro Gln Asp Ala Val Ala Leu Gln Tyr Cys Val Val Asn 65 70 75 80

Ile Leu Ser Val Thr Ser Ala Ile Val Val Ile Thr Ser Gly Ile Ala 85 90 95

Ala Ile Val Leu Ser Arg Tyr Leu Pro Ser Thr Pro Leu Arg Trp Thr 100 \$105\$

Val Phe Ser Ser Ser Val Ala Cys Ala Leu Leu Ser Leu Thr Cys Ala 115 120 125

Leu Gly Leu Leu Ala Ser Ile Ala Met Thr Phe Ala Thr Gln Gly Lys 130 135 140

Ala Leu Leu Ala Ala Cys Thr Phe Gly Ser Ser Glu Leu Leu Ala Leu 145 150 155 160

Ala Pro Asp Cys Pro Phe Asp Pro Thr Arg Ile Tyr Ser Ser Ser Leu 165 170 175

Cys Leu Trp Gly Ile Ala Leu Val Leu Cys Val Ala Glu Asn Val Phe 180 185 190

Ala Val Arg Cys Ala Gln Leu Thr His Gln Leu Leu Glu Leu Arg Pro

Trp Trp Gly Lys Ser Ser His His Met Met Arg Glu Asn Pro Glu Leu 210 215 220

Val Glu Gly Arg Asp Leu Leu Ser Cys Thr Ser Ser Glu Pro Leu Thr 225 230230235

Leu

<210> 268

<211> 37

<212> PRT

<213> Homo sapiens

<400> 268

Ala Glu Gly Leu Gln Ser Ala Ala Gly Ile Arg Ile Asp Thr Lys Ala 1 5 10 15

Gly Pro Pro Glu Met Leu Lys Pro Leu Trp Lys Ala Ala Val Ala Pro 20 25 30

Thr Trp Pro Cys Ser

<210> 269

<211> 525

<212> PRT

<213> Homo sapiens

<400> 269

Gly Pro Ala Val Cys Gly Trp Asn Gln Asp Arg His Gln Gly Arg Thr 1 $$\rm 10$$

Pro Arg Asp Ala Glu Ala Ser Leu Glu Ser Ser Ser Gly Pro His Met $20 \hspace{1cm} 25 \hspace{1cm} 30$

Ala Met Leu His Ala Ala Pro Pro Pro Val Gly Gln Arg Gly Trp His $35 \hspace{1cm} 40 \hspace{1cm} 45$

Ser Tyr Leu Pro Pro Val Ala Ser Ala Pro Ser Ser His Leu Gly Pro 65 70 75 80

Gly Ala Ala Gln Gly Arg Ala Gln Val Leu Gly Ala Trp Leu Pro Ala 85 90 95

Gln Leu Gly Ser Pro Trp Lys Gln Arg Ala Arg Gln Gln Arg Asp Ser $100 \hspace{1cm} 105 \hspace{1cm} 110 \hspace{1cm}$

Cys Gln Leu Val Leu Val Glu Ser Ile Pro Gln Asp Leu Pro Ser Ala 115 120 125

Ala Gly Ser Pro Ser Ala Gln Pro Leu Gly Gln Ala Trp Leu Gln Leu 130 $$\rm 135$ $\rm 140$

Leu Asp Thr Ala Gln Glu Ser Val His Val Ala Ser Tyr Tyr Trp Ser 145 150 155 160

Leu Thr Gly Pro Asp Ile Gly Val Asn Asp Ser Ser Ser Gln Leu Gly \$165\$ \$170\$ \$175\$

Glu Ala Leu Leu Gln Lys Leu Gln Gln Leu Leu Gly Arg Asn Ile Ser 180 185 190

Leu Gln Val Leu Ala Ala Arg Gly Ala His Val Arg Gln Val Pro Met

	21	0				21	5				220)			
G1: 22:	y Ar 5	g Le	u Th	r Me	t G1 <u>s</u>		l Leu	ı His	Ser	235		Tr	Val	. Val	. Asp 240
Gly	/ Ar	g Hi	s Il	e Ty:		: Gly	/ Ser	: Ala	Asr 250		Asp	Trp	Arg	Ser 255	Leu
Thi	Gl:	n Va	1 Ly: 26	s Glu	ı Lev	ı Gly	/ Ala	Val 265		Tyr	Asn	Cys	Ser 270		Leu
Gl	/ Gli	27		ı Glı	ı Lys	Thr	280		Thr	Tyr	Trp	Val 285		Gly	Val
Pro	290	Ala	a Vai	l Leu	Pro	Lys 295	Thr	Trp	Pro	Gln	Asn 300	Phe	Ser	Ser	His
Phe 305	Asr	a Arg	J Ph€	e Glr	310		His	Gly	Leu	Phe 315	Asp	Gly	Val	Pro	Thr 320
Thr	Ala	Туг	Phe	Ser 325	Ala	Ser	Pro	Pro	Ala 330	Leu	Cys	Pro	Gln	Gly 335	Arg
Thr	Arg	Asp	340	Glu	Ala	Leu	Leu	Ala 345	Val	Met	Gly	Ser	Ala 350	Gln	Glu
Phe	Ile	Tyr 355	Ala	Ser	Val	Met	Glu 360	Tyr	Phe	Pro	Thr	Thr 365	Arg	Phe	Ser
His	Pro 370		Arg	Tyr	Trp	Pro 375	Val	Leu	Asp	Asn	Ala 380	Leu	Arg	Ala	Ala
Ala 385	Phe	Gly	Lys	Gly	Val 390	Arg	Val	Arg	Leu	Leu 395	Val	Gly	Cys	Gly	Leu 400
Asn	Thr	Asp	Pro	Thr 405	Met	Phe	Pro	Tyr	Leu 410	Arg	Ser	Leu	Gln	Ala 415	Leu
Ser	Asn	Pro	Ala 420	Ala	Asn	Val	Ser	Val 425	Asp	Val	Lys	Val	Phe 430	Ile	Val
Pro	Val	Gly 435	Asn	His	Ser	Asn	Ile 440	Pro	Phe	Ser	Arg	Val 445	Asn	His	Ser
Lys	Phe 450	Met	Val	Thr	Glu	Lys 455	Ala	Ala	Tyr	Ile	Gly 460	Thr	Ser	Asn	Trp
Ser 465	Glu	Asp	Tyr	Phe	Ser 470	Ser	Thr	Ala	Gly	Val 475	Gly	Leu	Val	Val	Thr 480
Gln	Ser	Pro	Gly	Ala 485	Gln	Pro	Ala	Gly	Ala 490	Thr	Val	Gln	Glu	Gln 495	Leu
Arg	Gln	Leu	Phe 500	Glu	Arg	Asp		Ser 505	Ser	Arg	Tyr		Val 510	Gly	Leu
Asp	Gly	Gln 515	Ala	Pro	Gly	Gln	Asp 520	Cys	Val	Trp		Gly 525			

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<210> 270
<211> 24
 <212> PRT
 <213> Homo sapiens
 <400> 270
 Gln Gly Arg Thr Pro Arg Asp Ala Glu Ala Ser Leu Glu Ser Ser Ser
                   5
                                     10
 Gly Pro His Met Ala Met Leu His
              20
 <210> 271
 <211> 23
 <212> PRT
 <213> Homo sapiens
 <400> 271
 Gly Ser Ala Gly Cys Ala Val Ala Gly Leu Arg Gly Ser Tyr Leu Pro
                                     10
Pro Val Ala Ser Ala Pro Ser
              20
<210> 272
<211> 29
<212> PRT
<213> Homo sapiens
<400> 272
Ala Gln Gly Arg Ala Gln Val Leu Gly Ala Trp Leu Pro Ala Gln Leu
Gly Ser Pro Trp Lys Gln Arg Ala Arg Gln Gln Arg Asp
             20
                                 2.5
<210> 273
<211> 21
<212> PRT
<213> Homo sapiens
<400> 273
Pro Ser Ala Ala Gly Ser Pro Ser Ala Gln Pro Leu Gly Gln Ala Trp
               5
                                   10
Leu Gln Leu Leu Asp
             20
<210> 274
<211> 26
<212> PRT
<213> Homo sapiens
<400> 274
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141
  Val Ala Ser Tyr Tyr Trp Ser Leu Thr Gly Pro Asp Ile Gly Val Asn
  1 5
                        10
  Asp Ser Ser Ser Gln Leu Gly Glu Ala Leu
            20
 <210> 275
 <211> 25
 <212> PRT
 <213> Homo sapiens
 <400> 275
 Ser Leu Ala Val Ala Thr Ser Ser Pro Thr Leu Ala Arg Thr Ser Thr
                     10
 Asp Leu Gln Val Leu Ala Ala Arg Gly
            20
<210> 276
 <211> 26
<212> PRT
<213> Homo sapiens
<400> 276
Pro Gln Asn Phe Ser Ser His Phe Asn Arg Phe Gln Pro Phe His Gly
 1 5 10
Leu Phe Asp Gly Val Pro Thr Thr Ala Tyr
           20
                             2.5
<210> 277
<211> 27
<212> PRT
 <213> Homo sapiens
 <400> 277
 Pro Gln Gly Arg Thr Arg Asp Leu Glu Ala Leu Leu Ala Val Met Gly
                          10
 Ser Ala Gln Glu Phe Ile Tyr Ala Ser Val Met
           20
<210> 278
<211> 24
<212> PRT
<213> Homo sapiens
<400> 278
Ser His Pro Pro Arg Tyr Trp Pro Val Leu Asp Asn Ala Leu Arg Ala
               5
                                10
Ala Ala Phe Gly Lys Gly Val Arg
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<210> 279
 <211> 29
 <212> PRT
 <213> Homo sapiens
 <400> 279
 Thr Asp Pro Thr Met Phe Pro Tyr Leu Arg Ser Leu Gln Ala Leu Ser
                                     10
 Asn Pro Ala Ala Asn Val Ser Val Asp Val Lys Val Phe
              20
                                 25
<210> 280
 <211> 31
 <212> PRT
<213> Homo sapiens
<400> 280
Asp Val Lys Val Phe Ile Val Pro Val Gly Asn His Ser Asn Ile Pro
                                     10
Phe Ser Arg Val Asn His Ser Lys Phe Met Val Thr Glu Lys Ala
             20
                                 25
<210> 281
<211> 24
<212> PRT
<213> Homo sapiens
<400> 281
Gln Leu Arg Gln Leu Phe Glu Arg Asp Trp Ser Ser Arg Tyr Ala Val
                                     1.0
Gly Leu Asp Gly Gln Ala Pro Gly
             20
<210> 282
<211> 257
<212> PRT
<213> Homo sapiens
<400> 282
Ala Glu Gly Leu Gln Ser Ala Ala Gly Ile Arg Ile Asp Thr Lys Ala
Gly Pro Pro Glu Met Leu Lys Pro Leu Trp Lys Ala Ala Val Ala Pro
             20
                                                     30
Thr Trp Pro Cys Ser Met Pro Pro Arg Arg Pro Trp Asp Arg Glu Ala
        35
                             40
Gly Thr Leu Gln Val Leu Gly Ala Leu Ala Val Leu Trp Leu Gly Ser
                         55
Val Ala Leu Ile Cys Leu Leu Trp Gln Val Pro Arg Pro Pro Thr Trp
                    70
                                        75
```

Gly Gln Val Gln Pro Lys Asp Val Pro Arg Ser Trp Glu His Gly Phe $$ 85 $$ 90 $$ 95

Gln Pro Ser Leu Gly Ala Pro Gly Ser Arg Gly Pro Gly Ser Arg Gly
100 105 110

Thr Pro Ala Ser Leu Ser Leu Trp Lys Ala Ser Pro Arg Thr Cys His $115 \\ 120 \\ 125$

Leu Gln Pro Ala Ala Pro Leu Pro Ser Leu Trp Ala Arg Pro Gly Cys $130 \\ 135 \\ 140 \\ 140 \\ $

Gly Pro Ser Gln Gly Leu Thr Ser Gly Ser Thr Thr Arg Leu Pro Ser 165 170 175

Trp Glu Arg Leu Phe Cys Arg Ser Cys Ser Ser Cys Trp Ala Gly Thr 180 185 190

Phe Pro Trp Leu Trp Pro Pro Ala Ala Arg His Trp Pro Gly His Pro 195 200 205

Pro Trp Gly Gly Ser Pro Trp Val Phe Cys Thr Pro Asn Ser Gly Leu 225 230 235 240

Trp Met Asp Gly Thr Tyr Thr Trp Ala Val Pro Thr Trp Thr Gly Gly $245 \\ 250 \\ 255$

Leu

<210> 283

<211> 10

<212> PRT

<213> Homo sapiens

<400> 283

Lys Gln Pro Arg Gln Leu Phe Asn Ser Leu 1 5 10

<210> 284

<211> 34

<212> PRT

<213> Homo sapiens

<400> 284

Thr Gln Ser Thr Gly Leu Glu Ser Ser Cys Ser Glu Ala Pro Gly Leu $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Pro Leu Thr Phe Leu Val Ala Ala Thr Gln Arg Ala Leu Glu Trp Thr

Gln Glv

<210> 285

<211> 100

<212> PRT

<213> Homo sapiens

<400> 285

Thr Gln Ser Thr Gly Leu Glu Ser Ser Cys Ser Glu Ala Pro Gly Leu $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Pro Leu Thr Phe Leu Val Ala Ala Thr Gln Arg Ala Leu Glu Trp Thr \$20\$

Gln Gly Met Leu Leu Ile Ser Ala Val Gln Val Phe Ile Leu Leu Ser 35 40 45

Arg Gly Leu Glu Pro Ile Cys Pro Ala Ala Glu Trp Gly Gly Trp Arg 65 70 75 80

Asp Gly Tyr Leu Trp Leu Gln Tyr Gln Glu Pro Thr Val Ser Leu Asp 85 90 95

Asn Trp Gly Asn 100

<210> 286

<211> 228

<212> PRT

<213> Homo sapiens

<400> 286

Asp Thr Lys Asn Cys Gly Gln Glu Leu Ala Asn Leu Glu Lys Trp Lys $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$

Glu Gln Asn Arg Ala Lys Pro Val His Leu Val Pro Arg Arg Leu Gly
20 25 30

Gly Ser Gln Ser Glu Thr Glu Val Arg Gln Lys Gln Gln Leu Gln Leu 35 40 45

Met Gln Ser Lys Tyr Lys Gln Lys Leu Lys Arg Glu Glu Ser Val Arg 50 60

Ile Lys Lys Glu Ala Glu Glu Ala Glu Leu Gln Lys Met Lys Ala Ile 65 70 75 80

Gln Arg Glu Lys Ser Asn Lys Leu Glu Glu Lys Lys Arg Leu Gln Glu 85 90 95

Asn Leu Arg Arg Glu Ala Phe Arg Glu His Gln Gln Tyr Lys Thr Ala

Glu Phe Leu Ser Lys Leu Asn Thr Glu Ser Pro Asp Arg Ser Ala Cys \$115\$ \$120\$ \$125

Gln Ser Ala Val Cys Gly Pro Gln Ser Ser Thr Trp Ala Arg Ser Trp 130 $$135\$

Met Lys Asp Glu Gln His Gln Lys Ser Glu Leu Leu Glu Leu Lys Arg 165 170 175

Gln Gln Glu Glu Glu Arg Ala Lys Ile His Gln Thr Glu His Arg $180 \,$ $185 \,$ $190 \,$

Arg Val Asn Asn Ala Phe Leu Asp Arg Leu Gln Gly Lys Ser Gln Pro $195 \hspace{1cm} 200 \hspace{1cm} 205 \hspace{1cm}$

Gly Gly Leu Glu Gln Ser Gly Gly Cys Trp Asn Met Asn Ser Gly Asn 210 215 220

Ser Trp Gly I1e 225

<210> 287

<211> 21

<212> PRT

<213> Homo sapiens

<400> 287

Gly Glu Glu Leu Ala Asn Leu Glu Lys Trp Lys Glu Gln Asn Arg Ala 1 5 10 15

Lys Pro Val His Leu 20

<210> 288

<211> 26

<212> PRT

<213> Homo sapiens

<400> 288

Arg Arg Leu Gly Gly Ser Gln Ser Glu Thr Glu Val Arg Gln Lys Gln $\frac{1}{5}$ 5 10 15

Gln Leu Gln Leu Met Gln Ser Lys Tyr Lys 20 25

<210> 289

<211> 21

<212> PRT

<213> Homo sapiens

<400> 289

Glu Glu Ala Glu Leu Gln Lys Met Lys Ala Ile Gln Arg Glu Lys Ser

```
1
                 5
                                    10
                                                       15
 Asn Lys Leu Glu Glu
    . 20
<210> 290
 <211> 22
 <212> PRT
 <213> Homo sapiens
 <400> 290
 His Gln Gln Tyr Lys Thr Ala Glu Phe Leu Ser Lys Leu Asn Thr Glu
                                   1.0
 Ser Pro Asp Arg Ser Ala
            20
<210> 291
<211> 23
<212> PRT
<213> Homo sapiens
<400> 291
Leu Leu Glu Leu Lys Arg Gln Gln Gln Glu Gln Glu Arg Ala Lys Ile
                                   10
His Gln Thr Glu His Arg Arg
            20
<210> 292
<211> 22
<212> PRT
<213> Homo sapiens
Leu Asp Arg Leu Gln Gly Lys Ser Gln Pro Gly Gly Leu Glu Gln Ser
                                   10
Gly Gly Cys Trp Asn Met
            20
<210> 293
<211> 13
<212> PRT
<213> Homo sapiens
<400> 293
Leu Phe Ser Gly Glu Cys Leu Gln Arg Leu Trp Val Arg
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<210> 294 <211> 79 <212> PRT <213> Homo sapiens

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147
 <400> 294
 Arg His Glu Leu Val Pro Leu Val Pro Gly Leu Val Asn Ser Glu Val
                                     1.0
 His Asn Glu Asp Gly Arg Asn Gly Asp Val Ser Gln Phe Pro Tyr Val
 Glu Phe Thr Gly Arg Asp Ser Val Thr Cys Pro Thr Cys Gln Gly Thr
 Gly Arg Ile Pro Arg Gly Gln Glu Asn Gln Leu Val Ala Leu Ile Pro
 Tyr Ser Asp Gln Arg Leu Arg Pro Arg Arg Thr Lys Leu Tyr Val
                    7.0
 65
                                        75
<210> 295
<211> 23
<212> PRT
<213> Homo sapiens
<400> 295
Pro Gly Leu Val Asn Ser Glu Val His Asn Glu Asp Gly Arg Asn Gly
 1 5
Asp Val Ser Gln Phe Pro Tyr
             20
<210> 296
<211> 26
<212> PRT
<213> Homo sapiens
<400> 296
Thr Cys Pro Thr Cys Gln Gly Thr Gly Arg Ile Pro Arg Gly Gln Glu
Asn Gln Leu Val Ala Leu Ile Pro Tyr Ser
            20
<210> 297
<211> 255
<212> PRT
<213> Homo sapiens
<400> 297
Arg His Glu Leu Val Pro Leu Val Pro Glv Leu Val Asn Ser Glu Val
His Asn Glu Asp Gly Arg Asn Gly Asp Val Ser Gln Phe Pro Tyr Val
             20
```

Glu Phe Thr Gly Arg Asp Ser Val Thr Cys Pro Thr Cys Gln Gly Thr

Gly Arg Ile Pro Arg Gly Gln Glu Asn Gln Leu Val Ala Leu Ile Pro 50

Tyr Ser Asp Gln Arg Leu Arg Pro Arg Arg Thr Lys Leu Tyr Val Met 7.0

Ala Ser Val Phe Val Cys Leu Leu Ser Gly Leu Ala Val Phe Phe

Leu Phe Pro Arg Ser Ile Asp Val Lys Tyr Ile Gly Val Lys Ser Ala 105

Tyr Val Ser Tyr Asp Val Gln Lys Arg Thr Ile Tyr Leu Asn Ile Thr 115 120

Asn Thr Leu Asn Ile Thr Asn Asn Asn Tyr Tyr Ser Val Glu Val Glu 135

Asn Ile Thr Ala Gln Val Gln Phe Ser Lys Thr Val Ile Gly Lys Ala 145 150

Arg Leu Asn Asn Ile Ser Ile Ile Gly Pro Leu Asp Met Lys Gln Ile

Asp Tyr Thr Val Pro Thr Val Ile Ala Glu Glu Met Ser Tyr Met Tyr 180 1.85

Asp Phe Cys Thr Leu Ile Ser Ile Lys Val His Asn Ile Val Leu Met 195 200

Met Gln Val Thr Val Thr Thr Thr Tyr Phe Gly His Ser Glu Gln Ile 215

Ser Gln Glu Arg Tyr Gln Tyr Val Asp Cys Gly Arg Asn Thr Thr Tyr 225 230

Gln Leu Gly Gln Ser Glu Tyr Leu Asn Val Leu Gln Pro Gln Gln 245 250

<210> 298

<211> 10

<212> PRT

<213> Homo sapiens

<400> 298

Ala Leu Ser Thr Glu Thr Arg Thr Pro Asp 5